

# **STIC Search Report**

## **Biotech-Chem Library**

STIC Database Tracking Number: 136179

TO: Alton Pryor  
Location: Rem 4A39  
Art Unit: 1616  
October 26, 2004

4C110

Case Serial Number: 09/890384

From: P. Sheppard  
Location: Remsen Building  
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sheppard@uspto.gov

### Search Notes

=> fil hcaplus  
 FILE 'HCAPLUS' ENTERED AT 11:40:03 ON 26 OCT 2004  
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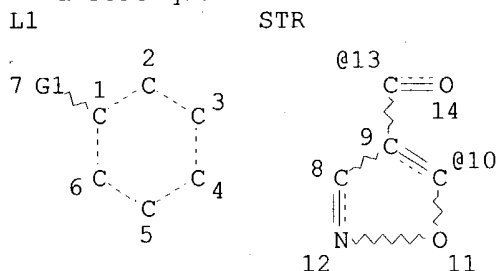
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FILE COVERS 1907 - 26 Oct 2004 VOL 141 ISS 18  
 FILE LAST UPDATED: 25 Oct 2004 (20041025/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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VAR G1=13/10

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE

L3	2644	SEA FILE=REGISTRY SSS FUL L1
L4	554	SEA FILE=HCAPLUS ABB=ON PLU=ON L3
L5	66069	SEA FILE=HCAPLUS ABB=ON PLU=ON ("WEED CONTROL"/CV OR "WEED CONTROL (HERBICIDAL)"/CV OR WEEDICIDES/CV OR "GROWTH INHIBITORS , PLANT"/CV OR HERBICIDES/CV OR "HORMONES, PLANT"/CV OR MULCHES/CV OR WEED/CV)
L6	19756	SEA FILE=HCAPLUS ABB=ON PLU=ON "WEED CONTROL (HERBICIDAL)"+AL L/CV
L7	58647	SEA FILE=HCAPLUS ABB=ON PLU=ON (HERBICIDES/CV OR "WEED CONTROL"/CV)
L8	215	SEA FILE=HCAPLUS ABB=ON PLU=ON L4 AND (L5 OR L6 OR L7)
L9	3	SEA FILE=HCAPLUS ABB=ON PLU=ON L8 AND ?CAPSUL?

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=> d ibib abs hitstr 19 1-3

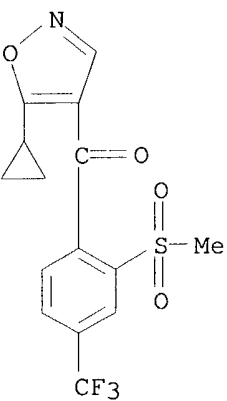
L9 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 2002:26966 HCAPLUS  
 DOCUMENT NUMBER: 136:290459  
 TITLE: New synergistic and selective herbicide compositions  
 AUTHOR(S): Anon.  
 CORPORATE SOURCE: UK  
 SOURCE: Research Disclosure (2001), 452(Dec.), P2044 (No. 452061)  
 CODEN: RSDSBB; ISSN: 0374-4353  
 PUBLISHER: Kenneth Mason Publications Ltd.  
 DOCUMENT TYPE: Journal; Patent  
 LANGUAGE: English  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
RD 452061		20011210		
PRIORITY APPLN. INFO.: RD 2001-452061 20011210				
<p>AB New herbicidal compns. have been found which are suitable for controlling a broad range of weeds in cultures of useful plants, in particular wheat or corn. Both monocot and dicot weeds may be controlled with the use of these compns. The compns. are suitable for use on both unmodified crops and those that are either naturally herbicide tolerant or have been modified to be tolerant to one or both of the herbicides in the compns. The compns. contain, beside standard formulation materials such as diluents, surfactants or adjuvants, a mixture of active ingredients comprising (1) 2-(2'-nitro-4'-methylsulfonylbenzoyl)-1,3-cyclohexane dione (mesotrione) and (2) a herbicidally effective amount of at least one further co-herbicide selected from the group consisting of bromoxynil, fluthiacet-Me, EPTC, halosulfuron-Me, clopyralid, diflufenzopyr, flumiclorac-pentyl, 2,4-D, bentazone, carfentrazone-Et, fluroxypyr, isoxaflutole, isoxachlortole, metosulam, sethoxydim, sulfentrazone, thifensulfuron-Me, cyanazine, fentrazamide, MCPA, MCPB, MCPP, mecoprop, metobenzuron, pethoxamid, profluzol and sulcotrione, isoxaflutole. The compns. can be used in a method for selectively controlling broadleaf weeds in useful plant cultures, in particular wheat or corn, which method comprises treating the useful plants, their seeds or a locus thereof at the same time or successively with mesotrione and the co-herbicide listed - above. The application rate is usually between 0.001 to 2.0 kg/ha of mesotrione, preferably from 0.005 to 1 kg/ha, and between 0.001 to 2.0 kg/ha of coherbicide, preferably 0.005 to 1 kg/ha. For application to the crops, the compns. of mesotrione with the co-herbicides may be applied together with the additives in formulations such as emulsion concs., brushable pastes, directly sprayable or dilutable solns., diluted emulsions, wettable powders, soluble powders, dusts, granules, or <b>capsules</b>. The compns. may also contain further additives such as stabilizers, antifoaming agents, viscosity modulators, as well as a safener, a further herbicide, a fungicide or an insecticide, or fertilizers or other active substances for achievement of special effects.</p>				
<p>IT <b>406921-65-1</b>, Mesotrione-isoxaflutole mixture <b>406921-66-2</b>, Mesotrione-isoxachlortole mixture          RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)          (synergistic and selective herbicide compns. containing)</p>				
<p>RN <b>406921-65-1</b> HCAPLUS          CN 1,3-Cyclohexanedione, 2-[4-(methylsulfonyl)-2-nitrobenzoyl]-, mixt. with (5-cyclopropyl-4-isoxazolyl)[2-(methylsulfonyl)-4-(trifluoromethyl)phenyl]methanone (9CI) (CA INDEX NAME)</p>				

CM 1

CRN 141112-29-0

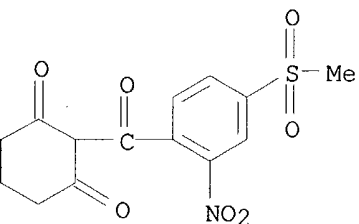
CMF C15 H12 F3 N O4 S



CM 2

CRN 104206-82-8

CMF C14 H13 N O7 S



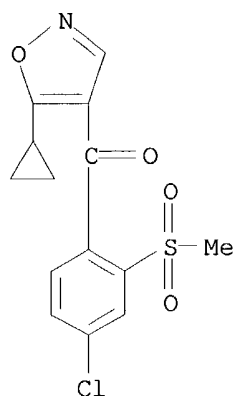
RN 406921-66-2 HCAPLUS

CN 1,3-Cyclohexanedione, 2-[4-(methanesulfonyl)-2-nitrobenzoyl]-, mixt. with  
[4-chloro-2-(methanesulfonyl)phenyl] (5-cyclopropyl-4-isoxazolyl)methanone  
(9CI) (CA INDEX NAME)

CM 1

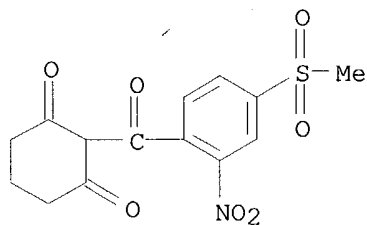
CRN 141112-06-3

CMF C14 H12 Cl N O4 S



CM 2

CRN 104206-82-8  
CMF C14 H13 N O7 S



L9 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 2000:742211 HCAPLUS  
DOCUMENT NUMBER: 133:323305  
TITLE: Active-substance vector multiparticulate system,  
production and use thereof  
INVENTOR(S): Prud'homme, Christian; Fleury, Etienne; Michalon,  
Jean-Paul; Zerrouk, Robert  
PATENT ASSIGNEE(S): Rhodia Chimie, Fr.; Aventis CropScience  
SOURCE: PCT Int. Appl., 76 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: French  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000061714	A1	20001019	WO 2000-FR940	20000412
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
FR 2791992	A1	20001013	FR 1999-4526	19990412

FR 2791992 B1 20030613  
 EP 1169425 A1 20020109 EP 2000-918954 20000412  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO

## PRIORITY APPLN. INFO.:

FR 1999-4526 A 19990412  
 WO 2000-FR940 W 20000412

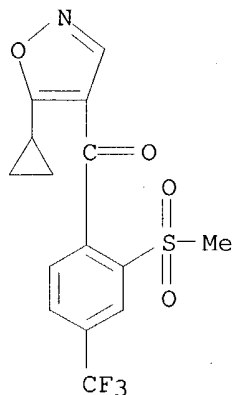
AB The object of the invention is an active-substance vector multiparticulate system comprising one or several active substances enclosed in a hydrophilic organic matrix comprising at least one hydrosol. and/or hydrodispersible anionic polymer which is precipitated by metallic cations. Typical active substances are perfumes used in detergents and agrochems. Thus, homogenizing a dispersion containing 20 g di-Me 5-sodiosulfoisophthalate-di-Me terephthalate-ethylene glycol-isophthalic acid copolymer (I, mol. weight 60,000-65,000) and 80 g water with a dispersion containing 500 g I and Eagle 3000 (liquid perfume), spraying the mixture in to a 0.1 M CaCl<sub>2</sub> solution, filtering, and drying as a fluidized bed 30 min at 37° gave a white powder.

IT 141112-29-0, Isoxaflutole

RL: PEP (Physical, engineering or chemical process); PROC (Process)  
 (herbicide; anionic polymer-**encapsulated** detergent perfumes  
 and agrochems.)

RN 141112-29-0 HCAPLUS

CN Methanone, (5-cyclopropyl-4-isoxazolyl)[2-(methylsulfonyl)-4-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:553354 HCAPLUS

DOCUMENT NUMBER: 133:160851

TITLE: Weed control by progressive or sequential delivery or release of isoxazole herbicide

INVENTOR(S): Roberts, David Alan; Zerrouk, Robert; Colegate, Rachel

PATENT ASSIGNEE(S): Aventis Agriculture Limited, UK

SOURCE: PCT Int. Appl., 30 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000045637	A1	20000810	WO 2000-EP1102	20000201
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,				

CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,  
IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,  
MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,  
SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM,  
AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,  
DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,  
CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

GB 2346086	A1	20000802	GB 1999-2232	19990201
GB 2348809	A1	20001018	GB 1999-8313	19990412
EG 23013	A	20031231	EG 2000-108	20000131
CA 2358522	AA	20000810	CA 2000-2358522	20000201
EP 1148784	A1	20011031	EP 2000-907543	20000201

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO

BR 2000009134	A	20020205	BR 2000-9134	20000201
ZA 2001005599	A	20021007	ZA 2001-5599	20010706
BG 105806	A	20020329	BG 2001-105806	20010809
HR 2001000643	A1	20020831	HR 2001-643	20010831

PRIORITY APPLN. INFO.:

GB 1999-2232	A	19990201
GB 1999-8313	A	19990412
WO 2000-EP1102	W	20000201

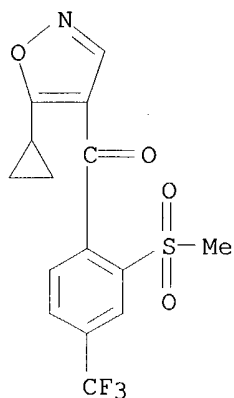
AB A method for controlling weeds consists of sequential treating the soil  
with low rates of an isoxazole herbicide, or applying a sustained release  
**encapsulated** formulation of an isoxazole herbicide.

IT **141112-29-0**, Isoxaflutole

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
(weed control by progressive or sequential delivery or release of  
isoxazole herbicide)

RN 141112-29-0 HCAPLUS

CN Methanone, (5-cyclopropyl-4-isoxazolyl)[2-(methylsulfonyl)-4-  
(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):=> d stat que nos

L1	STR
L3	2644 SEA FILE=REGISTRY SSS FUL L1
L4	554 SEA FILE=HCAPLUS ABB=ON PLU=ON L3
L5	66069 SEA FILE=HCAPLUS ABB=ON PLU=ON ("WEED CONTROL"/CV OR "WEED CONTROL (HERBICIDAL)"/CV OR WEEDICIDES/CV OR "GROWTH INHIBITORS , PLANT"/CV OR HERBICIDES/CV OR "HORMONES, PLANT"/CV OR

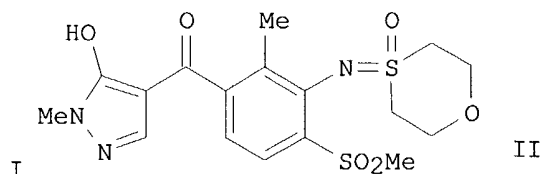
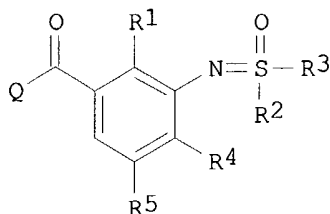
MULCHES/CV OR WEED/CV)  
L6 19756 SEA FILE=HCAPLUS ABB=ON PLU=ON "WEED CONTROL (HERBICIDAL)" +AL  
L/CV  
L7 58647 SEA FILE=HCAPLUS ABB=ON PLU=ON (HERBICIDES/CV OR "WEED  
CONTROL"/CV)  
L8 215 SEA FILE=HCAPLUS ABB=ON PLU=ON L4 AND (L5 OR L6 OR L7)  
L9 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L8 AND ?CAPSUL?  
L15 12 SEA FILE=HCAPLUS ABB=ON PLU=ON L4 AND AGROCHEM?  
L16 10 SEA FILE=HCAPLUS ABB=ON PLU=ON L15 NOT L9

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=> d ibib abs hitstr l16 1-10

L16 ANSWER 1 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 2004:515477 HCAPLUS  
DOCUMENT NUMBER: 141:54066  
TITLE: Preparation of benzoyl derivatives having sulfoximine  
group as herbicides  
INVENTOR(S): Kajita, Satoshi; Ohmura, Hideaki; Akashi, Masaya;  
Kojima, Shuichi; Satoh, Atsushi; Tomida, Kazuyuki  
PATENT ASSIGNEE(S): Nippon Soda Co., Ltd., Japan  
SOURCE: PCT Int. Appl., 94 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004052849	A1	20040624	WO 2003-JP15843	20031211
<p>W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,  CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,  GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO,  NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ,  TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM,  AZ, BY, KG, KZ  RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE,  BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU,  MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN,  GQ, GW, ML, MR, NE, SN, TD, TG</p>				
PRIORITY APPLN. INFO.:			JP 2002-360645	A 20021212
			JP 2003-108454	A 20030411
			JP 2003-343392	A 20031001
OTHER SOURCE(S): MARPAT 141:54066				
GI				





AB Title compds. I [wherein Q = (un)substituted 4-pyrazolyl, 2-oxophenyl, (alkylcarbonyl)cyanomethyl, 4-isoxazolyl, etc.; R1 = H, halo, (halo)alkyl, cyano, etc.; R2, R3 = independently (cyclo)alkyl, alkenyl, alkoxyalkyl, etc.; R4 = H, halo, alkoxy, nitro, etc.; R5 = H, halo, alkyl; and the benzoic acid derivs. or salts thereof] were prepared as herbicides. For example, substitution of Et 2-methyl-4-(methylsulfonyl)-3-trifluoromethylsulfonyloxybenzoate with 4-imino-1,4-oxathian-4-one (44%), followed by hydrolysis (89%) and the reaction with 1-methyl-3-pyrazolin-5-one hydrochloride (71%), gave II. I showed herbicidal activity of crabgrass, Echinochloa, abutilon, and other weeds, at 250 g/ha.

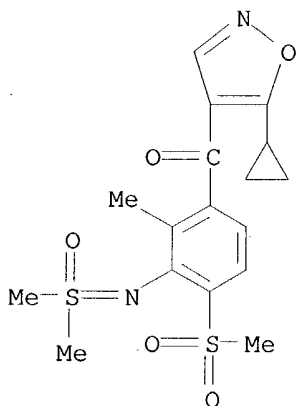
IT **708257-07-2P 708257-08-3P 708257-09-4P**

RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of benzoyl derivs. having sulfoximine group as herbicides)

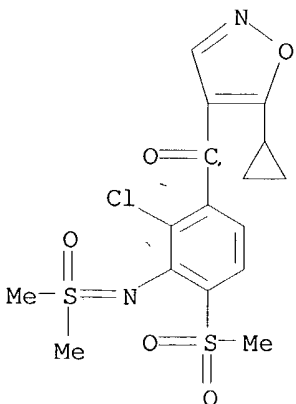
RN 708257-07-2 HCAPLUS

CN Sulfoximine, N-[3-[(5-cyclopropyl-4-isoxazolyl)carbonyl]-2-methyl-6-(methylsulfonyl)phenyl]-S,S-dimethyl- (9CI) (CA INDEX NAME)



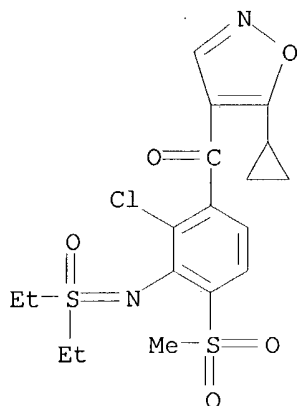
RN 708257-08-3 HCAPLUS

CN Sulfoximine, N-[2-chloro-3-[(5-cyclopropyl-4-isoxazolyl)carbonyl]-6-(methylsulfonyl)phenyl]-S,S-dimethyl- (9CI) (CA INDEX NAME)



RN 708257-09-4 HCAPLUS

CN Sulfoximine, N-[2-chloro-3-[(5-cyclopropyl-4-isoxazolyl)carbonyl]-6-(methylsulfonyl)phenyl]-S,S-diethyl- (9CI) (CA INDEX NAME)



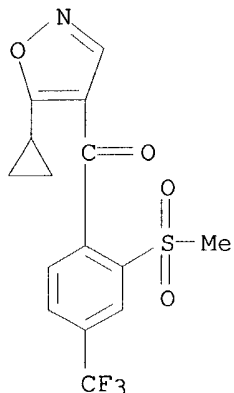
L16 ANSWER 2 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 2003:42999 HCAPLUS  
 DOCUMENT NUMBER: 138:68344  
 TITLE: Lignin-based microparticles for controlled release of  
**agrochemicals**  
 INVENTOR(S): Asrar, Jawed; Ding, Yiwei  
 PATENT ASSIGNEE(S): Monsanto Technology LLC, USA  
 SOURCE: U.S. Pat. Appl. Publ., 26 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003013612	A1	20030116	US 2002-191703	20020709
WO 2003005816	A1	20030123	WO 2002-US21722	20020710
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1404176	A1	20040407	EP 2002-748113	20020710
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
BR 2002010948	A	20040608	BR 2002-10948	20020710
PRIORITY APPLN. INFO.: US 2001-304554P P 20010711				
WO 2002-US21722 W 20020710				

AB A method of producing lignin-based matrix microparticles for the controlled release of an agricultural active includes forming an emulsion of an organic solution in an aqueous solution, wherein the organic solution contains a lignin derivative and an agricultural active in a volatile organic solvent and the aqueous solution contains an emulsifier; and removing the organic solvent, thereby producing microparticles having a matrix comprising the lignin derivative within which the agricultural active is distributed. Small, spherical lignin-based matrix microparticles that release an agricultural active at

a controlled rate are described, as are plants and plant propagation materials that are treated with such microparticles.

IT **141112-29-0**, Isoxaflutole  
 RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)  
 (lignin-based microparticles for controlled release of)  
 RN 141112-29-0 HCAPLUS  
 CN Methanone, (5-cyclopropyl-4-isoxazolyl)[2-(methylsulfonyl)-4-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



L16 ANSWER 3 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:777596 HCAPLUS

DOCUMENT NUMBER: 137:274424

TITLE: Coformulation of an oil-soluble herbicide and a water-soluble herbicide

INVENTOR(S): Jimoh, Ganiyu A.

PATENT ASSIGNEE(S): Monsanto Technology LLC, USA

SOURCE: PCT Int. Appl., 74 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

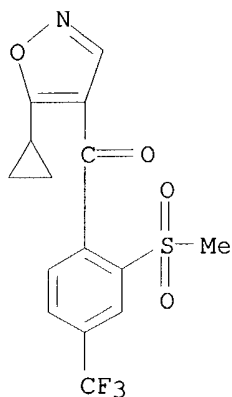
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002078442	A2	20021010	WO 2002-US5734	20020214
WO 2002078442	A3	20030103		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
EP 1359800	A2	20031112	EP 2002-728358	20020214
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
BR 2002007259	A	20040210	BR 2002-7259	20020214
PRIORITY APPLN. INFO.:			US 2001-331348P	P 20010214
			US 2001-269193P	P 20010215
			WO 2002-US5734	W 20020214

AB A stable, liquid concentrate herbicidal emulsion composition comprises a water-soluble herbicide in a continuous aqueous phase and an oil-soluble herbicide in a discontinuous oil phase.

IT **141112-29-0**, >, Isoxaflutole  
 RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)  
 (coformulations with water-soluble herbicides)

RN 141112-29-0 HCAPLUS

CN Methanone, (5-cyclopropyl-4-isoxazolyl)[2-(methylsulfonyl)-4-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



L16 ANSWER 4 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:770317 HCAPLUS

DOCUMENT NUMBER: 137:274345

TITLE: The residue behaviour of new herbicides in crop plants

AUTHOR(S): Storzer, Werner

CORPORATE SOURCE: Abteilung fuer Pflanzenschutzmittel und Anwendungstechnik, Fachgruppe Chemische Mittelpruefung, Biologische Bundesanstalt fuer Land- und Forstwirtschaft, Braunschweig, D-38104, Germany

SOURCE: Nachrichtenblatt des Deutschen Pflanzenschutzdienstes (Braunschweig, Germany) (2002), 54(8), 193-203  
 CODEN: NDPBA6; ISSN: 0027-7479

PUBLISHER: Verlag Eugen Ulmer GmbH & Co.

DOCUMENT TYPE: Journal; General Review

LANGUAGE: German

AB A review. Results of the residue behavior of herbicides, growth regulators and safeners which were submitted in the national authorization procedure at the biol. research center of agriculture and forestry for the first time during the past ten years are presented comparatively. Active ingredients of the second half of the nineties are included as „new compds.“ in the evaluation procedure of the EU for inclusion in Annex I of the Directive 91/414/EC. The residue level in crops of treated plants basically depends on several factors which are, in particular, kind of uptake and distribution, speed of degradation processes in and on those plants, dilution of present residues by mass growth of the plants, and the application rate of the active compound per ha. It is shown in general that low residue levels are reached at harvest at the latest or in many cases no residues of the herbicides considered are detectable. Residue values determined in certain matrixes are not directly related to the application rates in each case. Rather more important in this connection are application conditions, kind of uptake and distribution within the plant. In this respect, no new results are obvious compared to the properties of herbicides which are in use for several decades. However, it can be

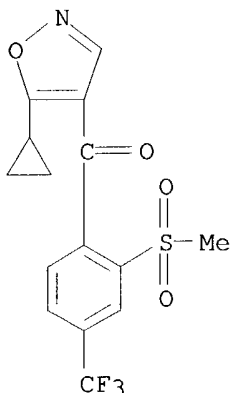
emphasized that most of the new active ingredients are applied in significantly lower rates than the average of common herbicides.

IT 141112-29-0, Isoxaflutole

RL: AGR (Agricultural use); BSU (Biological study, unclassified); POL (Pollutant); BIOL (Biological study); OCCU (Occurrence); USES (Uses) (residue behavior of new herbicides in crop plants)

RN 141112-29-0 HCAPLUS

CN Methanone, (5-cyclopropyl-4-isoxazolyl)[2-(methylsulfonyl)-4-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



L16 ANSWER 5 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:367989 HCAPLUS

DOCUMENT NUMBER: 133:6158

TITLE: Method and apparatus for preparation of unsymmetrical ketones with high conversion and selectivity

INVENTOR(S): Warren, Jack S.

PATENT ASSIGNEE(S): Eagleview Technologies, Inc., USA

SOURCE: PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

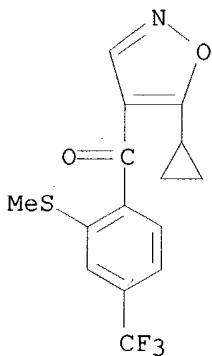
FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

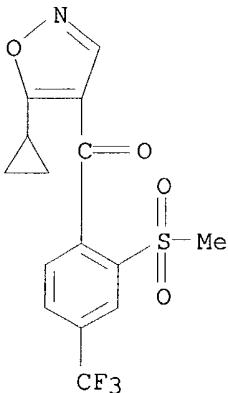
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000030448	A1	20000602	WO 1999-US25372	19991028
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6392099	B1	20020521	US 1999-394583	19990913
CA 2321720	AA	20000602	CA 1999-2321720	19991028
EP 1056341	A1	20001206	EP 1999-958696	19991028
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 6495696	B1	20021217	US 2002-143443	20020510
US 2002193638	A1	20021219		
PRIORITY APPLN. INFO.:			US 1998-109261P	P 19981119
			US 1999-394583	A 19990913

WO 1999-US25372 W 19991028

- AB The unsym. ketones (e.g., Me cyclopropyl ketone), useful as intermediates for numerous special chems. such as herbicidal or other agricultural compds, are continuously prepared by passing raw materials containing first acids (e.g., acetic acid), or aldehydes or their derivs., and second carboxy acids (e.g., cyclopropanecarboxylic acid) in the ratio 1:2 to 1:20 through a plurality of tube reactors, each having an inlet, an outlet and a catalytic bed (loaded catalysts, e.g., CeO<sub>2</sub> and Al<sub>2</sub>O<sub>3</sub>) between inlet and outlet, at 350-500° and weight hourly space velocities ≥2; and separating the ketone.
- IT **270917-64-1P**  
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
 (intermediate; method and apparatus for preparation of herbicidal or other agricultural compds.)
- RN 270917-64-1 HCAPLUS
- CN Methanone, (5-cyclopropyl-4-isoxazolyl)[2-(methylthio)-4-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



- IT **141112-29-0P**  
 RL: AGR (Agricultural use); BUU (Biological use, unclassified); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of herbicidal or other agricultural compds.)
- RN 141112-29-0 HCAPLUS
- CN Methanone, (5-cyclopropyl-4-isoxazolyl)[2-(methylsulfonyl)-4-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

5

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 6 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1999:197521 HCAPLUS  
 DOCUMENT NUMBER: 131:1657  
 TITLE: A Simple Structure-Based Calculator for Estimating Vapor Pressure  
 AUTHOR(S): Simmons, Kirk A.  
 CORPORATE SOURCE: Discovery Research Department Agricultural Products Group, FMC Corporation, Princeton, NJ, 08543, USA  
 SOURCE: Journal of Agricultural and Food Chemistry (1999), 47(4), 1711-1716  
 CODEN: JAFCAU; ISSN: 0021-8561  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB The development of an estimator for vapor pressure based upon organic functional groups is described. This vapor pressure calculator permits prediction of vapor pressure for a wide range of structural classes. The statistical quality of the derived coeffs. is presented as well as the quality of the prediction of the training set of compds. The calculator is then used to predict the vapor pressure of recently introduced **agrochems.** to illustrate its performance. The significance of this calculator is that the **agrochem.** scientist can readily estimate the effects on vapor pressure of altering specific structural features of a mol.

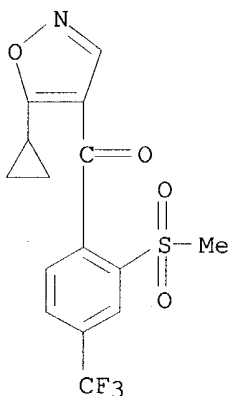
IT 141112-29-0, RPA 201772

RL: PRP (Properties)

(calculator for estimating vapor pressure based on organic functional groups and prediction of vapor pressure of **agrochems.**)

RN 141112-29-0 HCAPLUS

CN Methanone, (5-cyclopropyl-4-isoxazolyl)[2-(methylsulfonyl)-4-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 7 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1995:996288 HCAPLUS  
 DOCUMENT NUMBER: 124:146156  
 TITLE: Preparation of oxime-containing heterocyclic compounds as **agrochemical** fungicides  
 INVENTOR(S): Takase, Akira; Kai, Hiroyuki; Nishida, Kuniyoshi; Iwakawa, Tsuneo; Ueda, Kazuo; Masuko, Michio  
 PATENT ASSIGNEE(S): Shionogi and Co., Ltd., Japan  
 SOURCE: PCT Int. Appl., 497 pp.  
 CODEN: PIXXD2

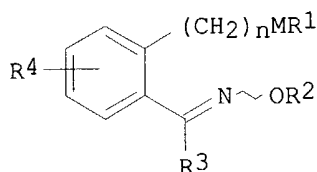
DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9526956	A1	19951012	WO 1995-JP604	19950330
W: AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, IS, JP, KG, KR, KZ, LK, LR, LT, LV, MD, MG, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TT, UA, US, UZ, VN				
RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2186947	AA	19951012	CA 1995-2186947	19950330
AU 9520843	A1	19951023	AU 1995-20843	19950330
AU 685933	B2	19980129		
EP 754684	A1	19970122	EP 1995-913382	19950330
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
CN 1144524	A	19970305	CN 1995-192324	19950330
CN 1094487	B	20021120		
BR 9507203	A	19970909	BR 1995-7203	19950330
US 6048885	A	20000411	US 1996-693224	19960821
US 6268312	B1	20010731	US 1999-370255	19990809
US 2002032227	A1	20020314	US 2000-728321	20001204
US 6362212	B2	20020326		

PRIORITY APPLN. INFO.:

JP 1994-87819	A	19940401
WO 1995-JP604	W	19950330
US 1996-693224	A3	19960821
US 1999-370255	A3	19990809

OTHER SOURCE(S): MARPAT 124:146156  
 GI



AB The title compds. I [R1 represents optionally substituted aryl, optionally substituted heterocycle, mono- or di-substituted methyleneamino, optionally substituted (substituted imino)methyl, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted alkynyl, substituted carbonyl or substituted sulfonyl; R2 represents alkyl, alkenyl, alkynyl or cycloalkyl; R3 represents optionally substituted heterocycle; R4 represents hydrogen, alkyl, alkoxy, halogen, nitro, cyano or haloalkyl; M represents oxygen, S(O)<sub>i</sub> (i being 0, 1 or 2), NR16 (R16 being hydrogen, alkyl or acyl) or a single bond; n represents 0 or 1, provided n represents 1 when R3 represents imidazol-1-yl or 1H-1,2,4-triazol-1-yl; and the wavy line represents the E form, Z form or a mixture thereof] are prepared. A table containing 3140 compds. of this invention (including 293 compds. with data such m. p. or NMR data) and 36 synthetic examples dealing with the preparation of compds. of this invention are given in this document. In preventive tests, I [R1 = phenyl; R2 = methyl; R3 = imidazol-1-yl; R4 = H; M = O; n = 1] (m. p. 66 - 67.5°) at 500 ppm gave 90% control of Pyricularia oryzae, 100% control of Sphaerotheca fuliginea, and 100% control of Botrytis cinerea.

IT 173304-87-5P 173304-88-6P

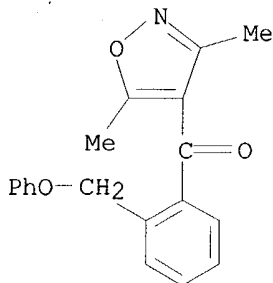
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT



(Reactant or reagent)

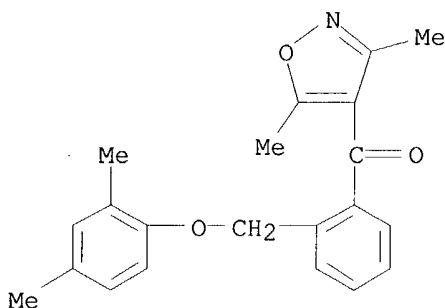
(preparation of oxime-containing heterocyclic compds. as **agrochem.**  
fungicides)

RN 173304-87-5 HCAPLUS

CN Methanone, (3,5-dimethyl-4-isoxazolyl)[2-(phenoxy)methyl]phenyl]- (9CI)  
(CA INDEX NAME)

RN 173304-88-6 HCAPLUS

CN Methanone, (3,5-dimethyl-4-isoxazolyl)[2-[(2,4-dimethylphenoxy)methyl]phenyl]- (9CI) (CA INDEX NAME)



L16 ANSWER 8 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1994:655784 HCAPLUS

DOCUMENT NUMBER: 121:255784

TITLE: 4-benzoylisoxazole herbicides

INVENTOR(S): Musil, Tibor; Pettit, Simon Neil; Smith, Philip Henry Gaunt

PATENT ASSIGNEE(S): Rhone-Poulenc Agriculture Ltd., UK

SOURCE: PCT Int. Appl., 84 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

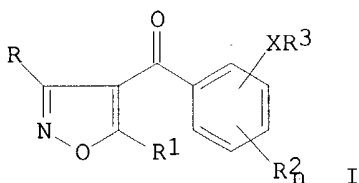
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9414782	A1	19940707	WO 1993-EP3537	19931215
W: AU, BB, BG, BR, BY, CA, CZ, FI, HU, JP, KR, KZ, LK, MG, MW, NO, NZ, PL, RO, RU, SD, SK, UA, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2150922	AA	19940707	CA 1993-2150922	19931215
AU 9458106	A1	19940719	AU 1994-58106	19931215
AU 674050	B2	19961205		
EP 674629	A1	19951004	EP 1994-903775	19931215

EP 674629	B1	19980708		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
BR 9307790	A	19951121	BR 1993-7790	19931215
HU 72276	A2	19960429	HU 1995-1763	19931215
AT 168107	E	19980715	AT 1994-903775	19931215
ZA 9309463	A	19950116	ZA 1993-9463	19931217
CN 1089258	A	19940713	CN 1993-120759	19931218
CN 1037437	B	19980218		
FI 9503021	A	19950619	FI 1995-3021	19950619
US 6323155	B1	20011127	US 1995-454370	19951101
US 2002045551	A1	20020418	US 2001-964370	20010928
PRIORITY APPLN. INFO.:			GB 1992-26396	A 19921218
			GB 1993-10204	A 19930518
			WO 1993-EP3537	W 19931215
			US 1995-454370	A3 19951101

OTHER SOURCE(S): MARPAT 121:255784  
GI



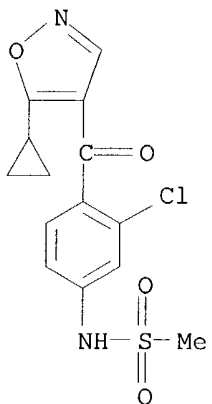
AB 4-Benzoylisoxazoles [I; R = H, alkoxycarbonyl; R1 = alkyl, haloalkyl, (un)substituted cycloalkyl; R2 = halogen, optionally halogenated alkyl, alkenyl, (un)substituted alkynyl, (un)substituted Ph, etc.; R3 = represents S(O)qR7; R7 = alkyl, (un)substituted alkenyl or alkynyl, cycloalkyl, (un)substituted Ph, etc.; q = 0, 2; X = NR8; R8 = H, alkyl, (un)substituted alkenyl or alkynyl, cycloalkyl, (un)substituted Ph, etc.], useful as herbicides, are prepared and I-containing formulations presented. Thus, hydroxylamine hydrochloride was cyclocondensed with 1-[2-chloro-4-(methylsulfonylamino)phenyl]-3-cyclopropyl-2-ethoxymethylenepropane-1,3-dione, producing herbicide 4-[2-chloro-4-(methylsulfonylamino)benzoyl]-5-cyclopropylisoxazole, m.p. 122.8-124.5°.

IT 158579-21-6 158579-22-7 158579-24-9  
158579-25-0 158579-26-1 158579-27-2  
158579-28-3 158579-29-4 158579-30-7  
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158579-38-5 158579-40-9 158579-41-0  
158579-42-1 158579-43-2 158579-44-3  
158579-45-4 158579-47-6 158579-48-7  
158579-49-8 158579-50-1 158579-51-2  
158579-52-3 158579-53-4 158579-54-5  
158579-55-6 158579-56-7 158579-57-8  
158579-58-9 158579-59-0 158579-60-3  
158579-61-4

RL: RCT (Reactant); RACT (Reactant or reagent)  
(agrochem. herbicide)

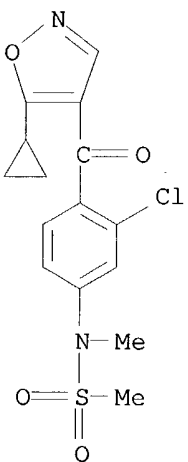
RN 158579-21-6 HCAPLUS

CN Methanesulfonamide, N-[3-chloro-4-[(5-cyclopropyl-4-isoxazolyl)carbonyl]phenyl]- (9CI) (CA INDEX NAME)



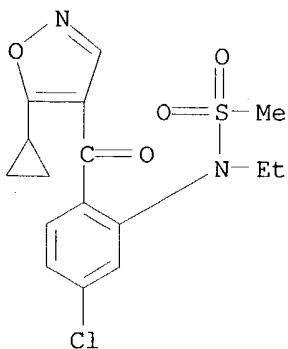
RN 158579-22-7 HCAPLUS

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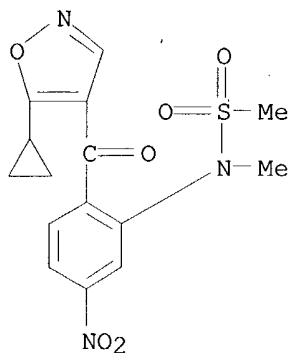
RN 158579-24-9 HCAPLUS

CN: Methanesulfonamide, N-[5-chloro-2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]phenyl]-N-ethyl- (9CI) (CA INDEX NAME)



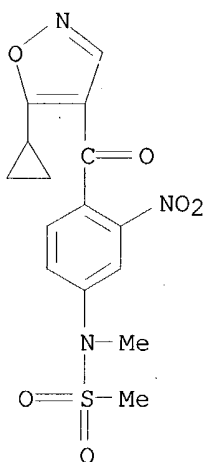
RN 158579-25-0 HCAPLUS

CN Methanesulfonamide, N-[2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]-5-nitrophenyl]-N-methyl- (9CI) (CA INDEX NAME)



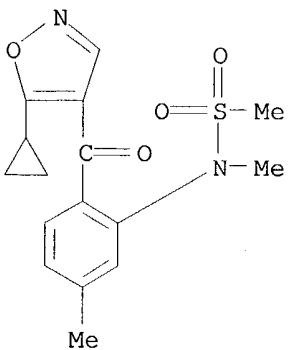
RN 158579-26-1 HCAPLUS

CN Methanesulfonamide, N-[4-[(5-cyclopropyl-4-isoxazolyl)carbonyl]-3-nitrophenyl]-N-methyl- (9CI) (CA INDEX NAME)

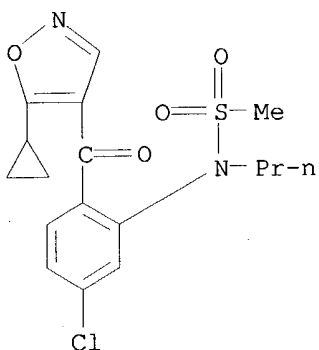


RN 158579-27-2 HCAPLUS

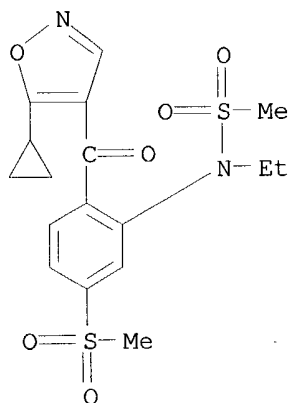
CN Methanesulfonamide, N-[2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]-5-methylphenyl]-N-methyl- (9CI) (CA INDEX NAME)



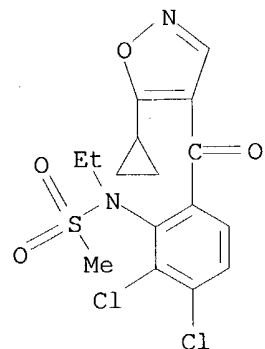
RN 158579-28-3 HCAPLUS  
 CN Methanesulfonamide, N-[5-chloro-2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]phenyl]-N-propyl- (9CI) (CA INDEX NAME)



RN 158579-29-4 HCAPLUS  
 CN Methanesulfonamide, N-[2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]-5-(methylsulfonyl)phenyl]-N-ethyl- (9CI) (CA INDEX NAME)

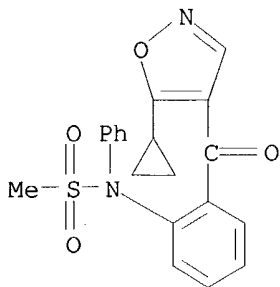


RN 158579-30-7 HCAPLUS  
 CN Methanesulfonamide, N-[2,3-dichloro-6-[(5-cyclopropyl-4-isoxazolyl)carbonyl]phenyl]-N-ethyl- (9CI) (CA INDEX NAME)



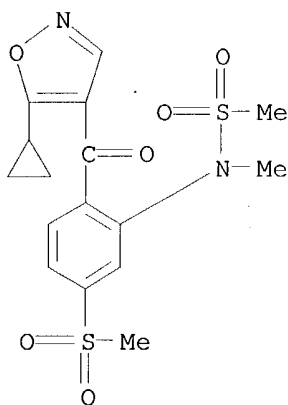
RN 158579-32-9 HCAPLUS

CN Methanesulfonamide, N-[2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]phenyl]-N-phenyl- (9CI) (CA INDEX NAME)



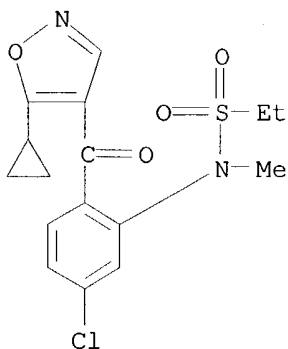
RN 158579-34-1 HCAPLUS

CN Methanesulfonamide, N-[2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]-5-(methylsulfonyl)phenyl]-N-methyl- (9CI) (CA INDEX NAME)



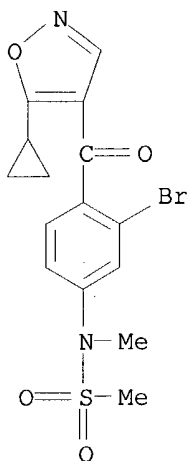
RN 158579-35-2 HCAPLUS

CN Ethanesulfonamide, N-[5-chloro-2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]phenyl]-N-methyl- (9CI) (CA INDEX NAME)



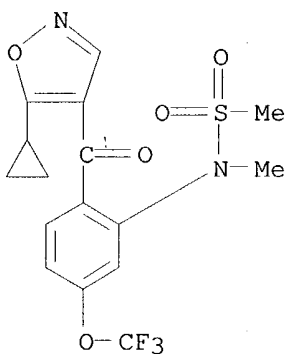
RN 158579-38-5 HCAPLUS

CN Methanesulfonamide, N-[3-bromo-4-[(5-cyclopropyl-4-isoxazolyl)carbonyl]phenyl]-N-methyl- (9CI) (CA INDEX NAME)



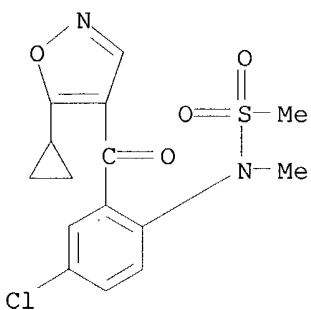
RN 158579-40-9 HCAPLUS

CN Methanesulfonamide, N-[2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]-5-(trifluoromethoxy)phenyl]-N-methyl- (9CI) (CA INDEX NAME)



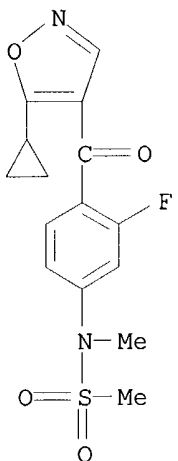
RN 158579-41-0 HCAPLUS

CN Methanesulfonamide, N-[4-chloro-2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]phenyl]-N-methyl- (9CI) (CA INDEX NAME)

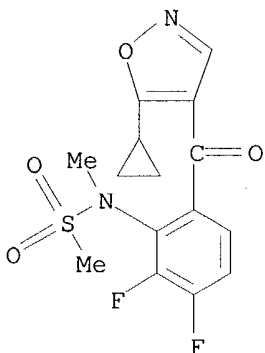


RN 158579-42-1 HCAPLUS

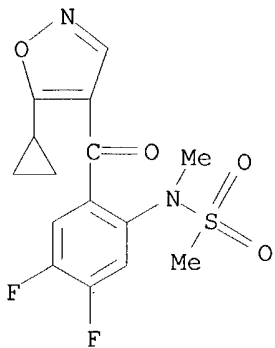
CN Methanesulfonamide, N-[4-[(5-cyclopropyl-4-isoxazolyl)carbonyl]-3-fluorophenyl]-N-methyl- (9CI) (CA INDEX NAME)



RN 158579-43-2 HCAPLUS  
 CN Methanesulfonamide, N-[6-[(5-cyclopropyl-4-isoxazolyl)carbonyl]-2,3-difluorophenyl]-N-methyl- (9CI) (CA INDEX NAME)

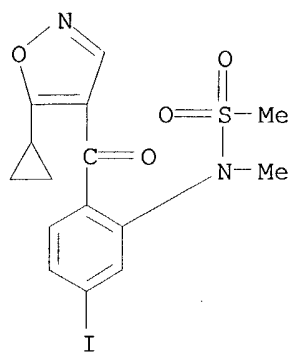


RN 158579-44-3 HCAPLUS  
 CN Methanesulfonamide, N-[2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]-4,5-difluorophenyl]-N-methyl- (9CI) (CA INDEX NAME)



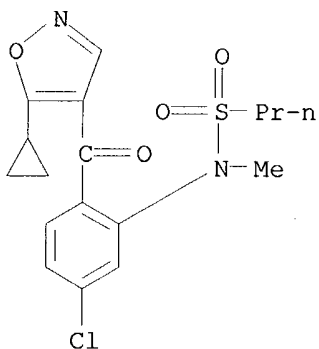
RN 158579-45-4 HCAPLUS  
 CN Methanesulfonamide, N-[2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]-5-iodophenyl]-N-methyl- (9CI) (CA INDEX NAME)





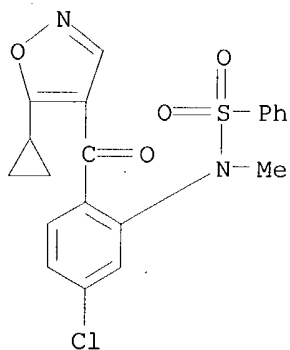
RN 158579-47-6 HCAPLUS

CN 1-Propanesulfonamide, N-[5-chloro-2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]phenyl]-N-methyl- (9CI) (CA INDEX NAME)



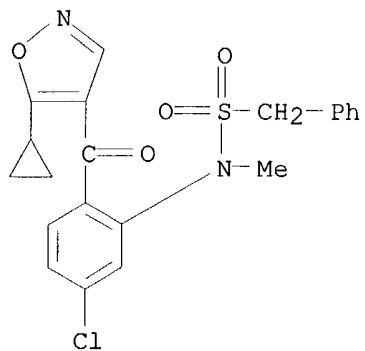
RN 158579-48-7 HCAPLUS

CN Benzenesulfonamide, N-[5-chloro-2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]phenyl]-N-methyl- (9CI) (CA INDEX NAME)

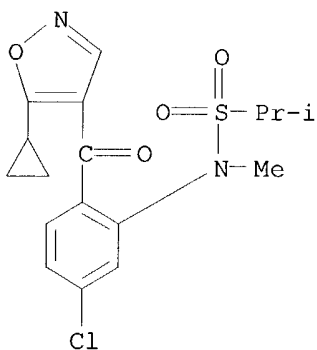


RN 158579-49-8 HCAPLUS

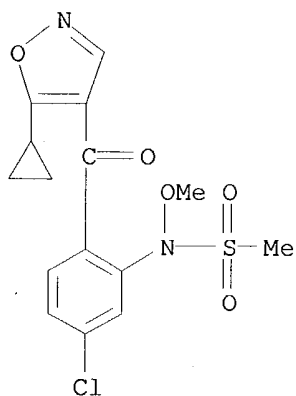
CN Benzenemethanesulfonamide, N-[5-chloro-2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]phenyl]-N-methyl- (9CI) (CA INDEX NAME)



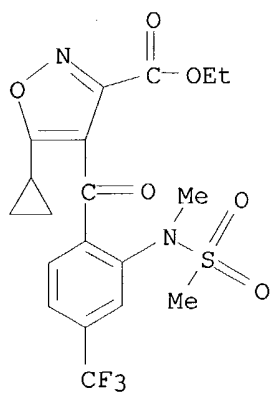
RN 158579-50-1 HCAPLUS  
 CN 2-Propanesulfonamide, N-[5-chloro-2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]phenyl]-N-methyl- (9CI) (CA INDEX NAME)



RN 158579-51-2 HCAPLUS  
 CN Methanesulfonamide, N-[5-chloro-2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]phenyl]-N-methoxy- (9CI) (CA INDEX NAME)

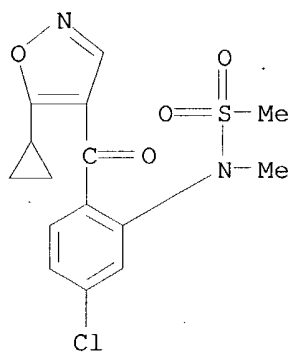


RN 158579-52-3 HCAPLUS  
 CN 3-Isoxazolecarboxylic acid, 5-cyclopropyl-4-[2-[methyl(methylsulfonyl)amino]-4-(trifluoromethyl)benzoyl]-, ethyl ester (9CI) (CA INDEX NAME)



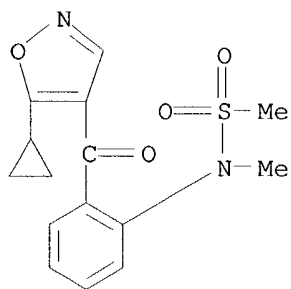
RN 158579-53-4 HCAPLUS

CN Methanesulfonamide, N-[5-chloro-2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]phenyl]-N-methyl- (9CI) (CA INDEX NAME)



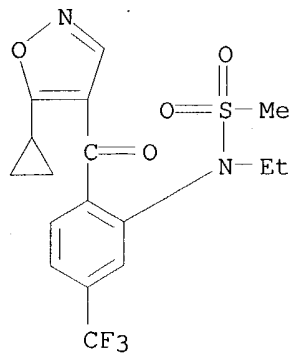
RN 158579-54-5 HCAPLUS

CN Methanesulfonamide, N-[2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]phenyl]-N-methyl- (9CI) (CA INDEX NAME)



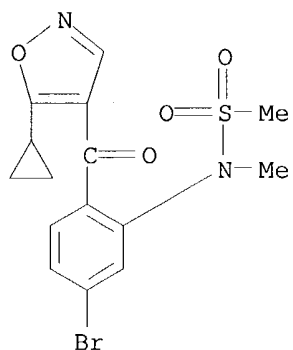
RN 158579-55-6 HCAPLUS

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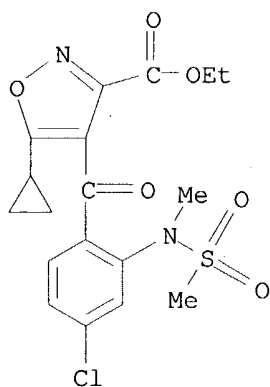
RN 158579-56-7 HCAPLUS

CN Methanesulfonamide, N-[5-bromo-2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]phenyl]-N-methyl- (9CI) (CA INDEX NAME)



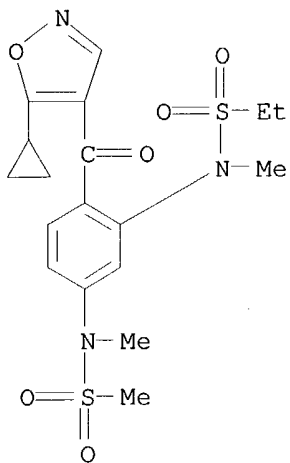
RN 158579-57-8 HCAPLUS

CN 3-Isioxazolecarboxylic acid, 4-[4-chloro-2-[methyl(methylsulfonyl)amino]benzoyl]-5-cyclopropyl-, ethyl ester (9CI) (CA INDEX NAME)

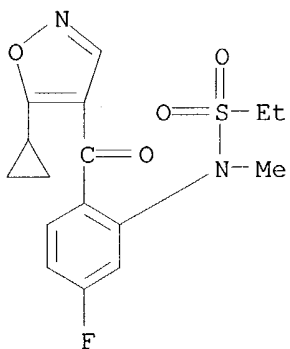


RN 158579-58-9 HCAPLUS

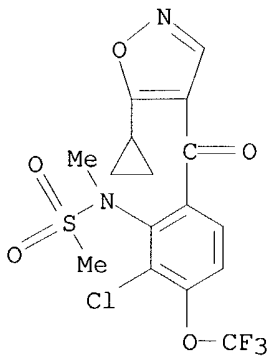
CN Ethanesulfonamide, N-[2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]-5-[methyl(methylsulfonyl)amino]phenyl]-N-methyl- (9CI) (CA INDEX NAME)



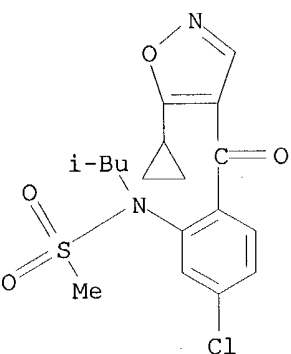
RN 158579-59-0 HCAPLUS  
 CN Ethanesulfonamide, N-[2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]-5-fluorophenyl]-N-methyl- (9CI) (CA INDEX NAME)



RN 158579-60-3 HCAPLUS  
 CN Methanesulfonamide, N-[2-chloro-6-[(5-cyclopropyl-4-isoxazolyl)carbonyl]-3-(trifluoromethoxy)phenyl]-N-methyl- (9CI) (CA INDEX NAME)



RN 158579-61-4 HCAPLUS  
 CN Methanesulfonamide, N-[5-chloro-2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]phenyl]-N-(2-methylpropyl)- (9CI) (CA INDEX NAME)

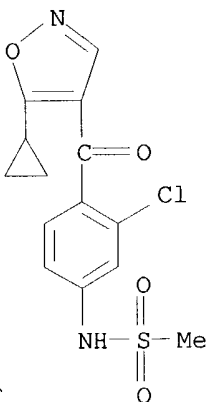


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 158579-24-9P 158579-25-0P 158579-26-1P  
 158579-27-2P 158579-28-3P 158579-29-4P  
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RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of, as **agrochem.** herbicide)

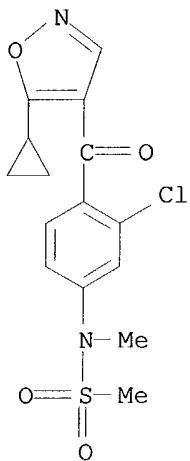
RN 158579-21-6 HCAPLUS

CN Methanesulfonamide, N-[3-chloro-4-[(5-cyclopropyl-4-isoxazolyl)carbonyl]phenyl]- (9CI) (CA INDEX NAME)



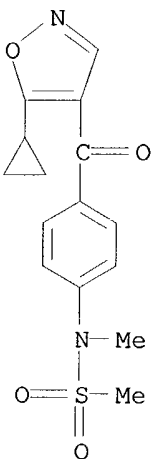
RN 158579-22-7 HCAPLUS

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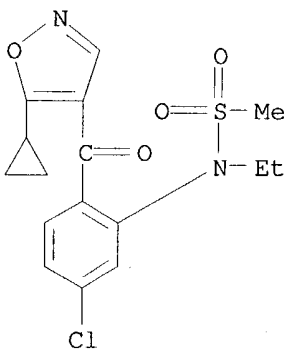
RN 158579-23-8 HCAPLUS

CN Methanesulfonamide, N-[4-[(5-cyclopropyl-4-isoxazolyl)carbonyl]phenyl]-N-methyl- (9CI) (CA INDEX NAME)

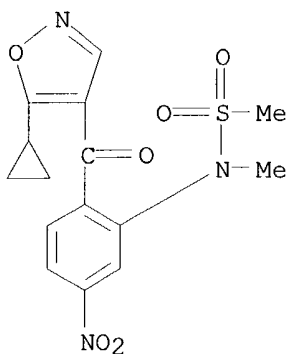


RN 158579-24-9 HCAPLUS

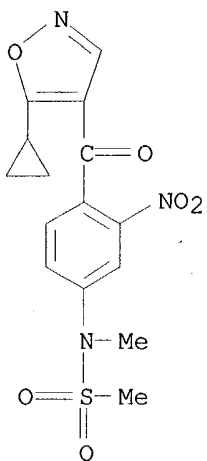
CN Methanesulfonamide, N-[5-chloro-2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]phenyl]-N-ethyl- (9CI) (CA INDEX NAME)



RN 158579-25-0 HCAPLUS  
 CN Methanesulfonamide, N-[2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]-5-nitrophenyl]-N-methyl- (9CI) (CA INDEX NAME)

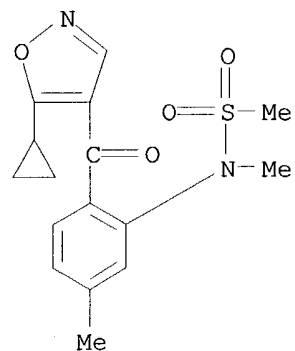


RN 158579-26-1 HCAPLUS  
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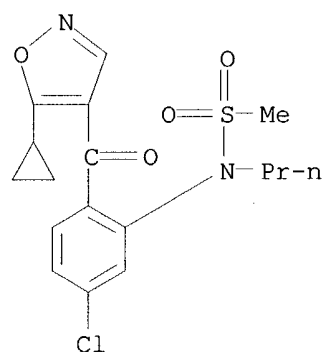


RN 158579-27-2 HCAPLUS  
 CN Methanesulfonamide, N-[2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]-5-methylphenyl]-N-methyl- (9CI) (CA INDEX NAME)

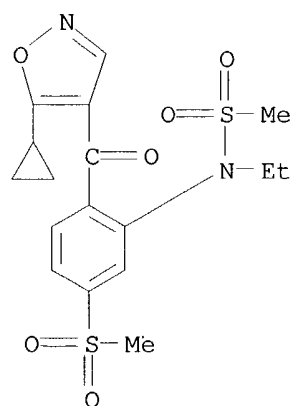




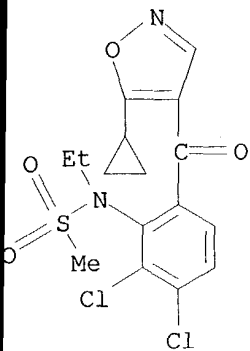
RN 158579-28-3 HCAPLUS  
 CN Methanesulfonamide, N-[5-chloro-2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]phenyl]-N-propyl- (9CI) (CA INDEX NAME)



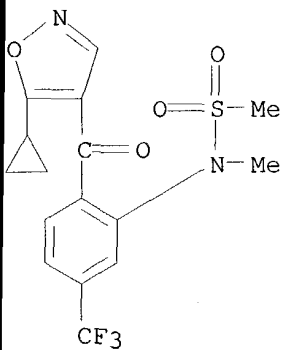
RN 158579-29-4 HCAPLUS  
 CN Methanesulfonamide, N-[2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]-5-(methylsulfonyl)phenyl]-N-ethyl- (9CI) (CA INDEX NAME)



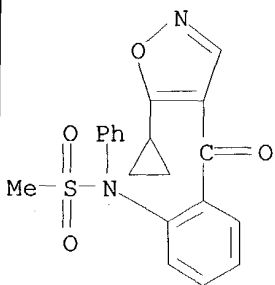
RN 158579-30-7 HCAPLUS  
 CN Methanesulfonamide, N-[2,3-dichloro-6-[(5-cyclopropyl-4-isoxazolyl)carbonyl]phenyl]-N-ethyl- (9CI) (CA INDEX NAME)



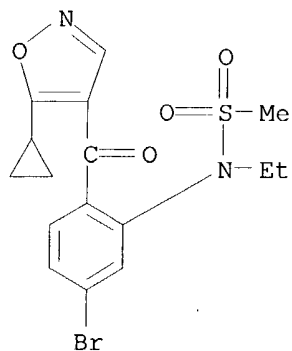
RN 158579-31-8 HCAPLUS  
 CN Methanesulfonamide, N-[2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]-5-(trifluoromethyl)phenyl]-N-methyl- (9CI) (CA INDEX NAME)



RN 158579-32-9 HCAPLUS  
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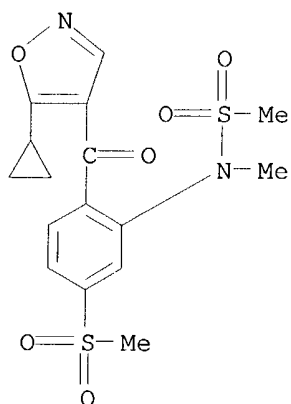


RN 158579-33-0 HCAPLUS  
 CN Methanesulfonamide, N-[5-bromo-2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]phenyl]-N-ethyl- (9CI) (CA INDEX NAME)



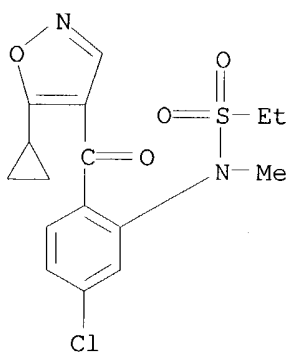
RN 158579-34-1 HCAPLUS

CN Methanesulfonamide, N-[2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]-5-(methylsulfonyl)phenyl]-N-methyl- (9CI) (CA INDEX NAME)



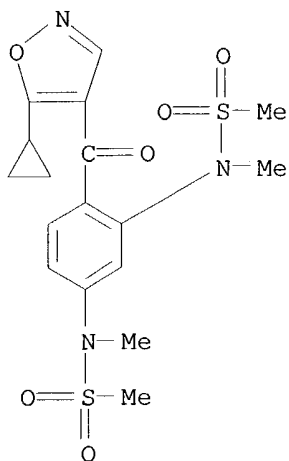
RN 158579-35-2 HCAPLUS

CN Ethanesulfonamide, N-[5-chloro-2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]phenyl]-N-methyl- (9CI) (CA INDEX NAME)



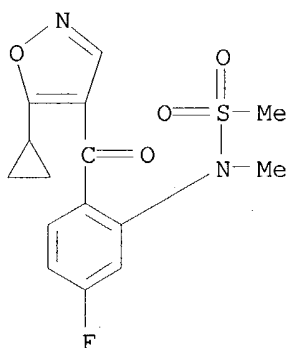
RN 158579-36-3 HCAPLUS

CN Methanesulfonamide, N,N'-[4-[(5-cyclopropyl-4-isoxazolyl)carbonyl]-1,3-phenylene]bis[N-methyl- (9CI) (CA INDEX NAME)



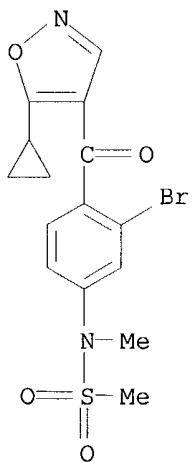
RN 158579-37-4 HCAPLUS

CN Methanesulfonamide, N-[2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]-5-fluorophenyl]-N-methyl- (9CI) (CA INDEX NAME)



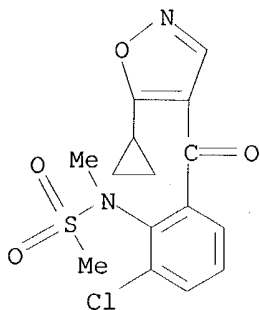
RN 158579-38-5 HCAPLUS

CN Methanesulfonamide, N-[3-bromo-4-[(5-cyclopropyl-4-isoxazolyl)carbonyl]phenyl]-N-methyl- (9CI) (CA INDEX NAME)



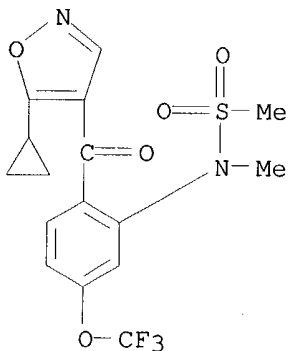
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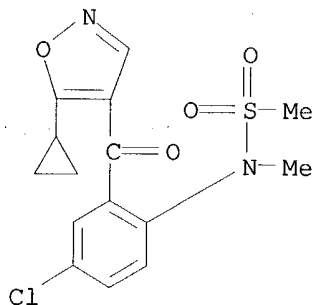
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CN Methanesulfonamide, N-[2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]-5-(trifluoromethoxy)phenyl]-N-methyl- (9CI) (CA INDEX NAME)



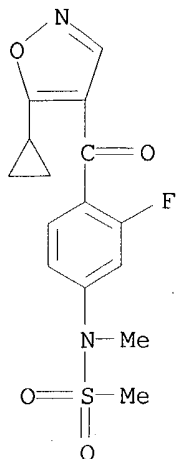
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CN Methanesulfonamide, N-[4-chloro-2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]phenyl]-N-methyl- (9CI) (CA INDEX NAME)

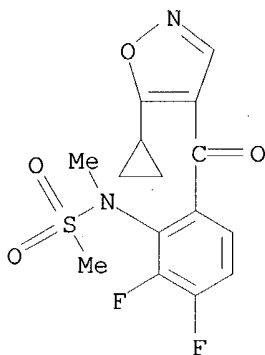


RN 158579-42-1 HCAPLUS

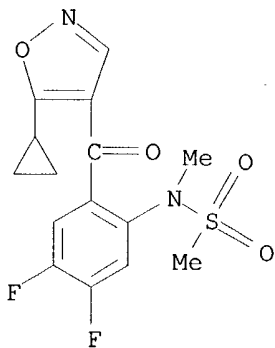
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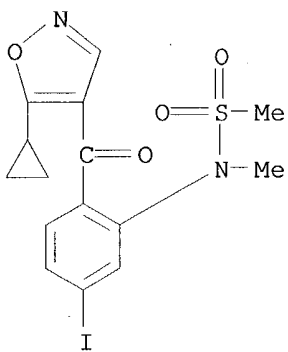
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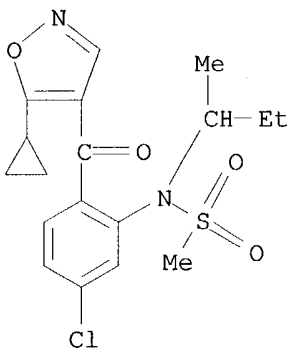
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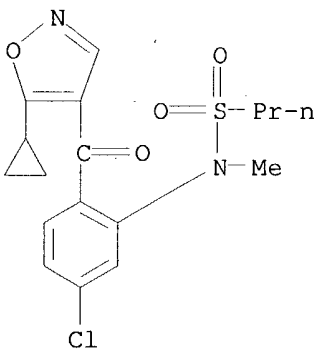
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 CN Methanesulfonamide, N-[5-[(5-cyclopropyl-4-isoxazolyl)carbonyl]-2,3-difluorophenyl]-N-methyl- (9CI) (CA INDEX NAME)



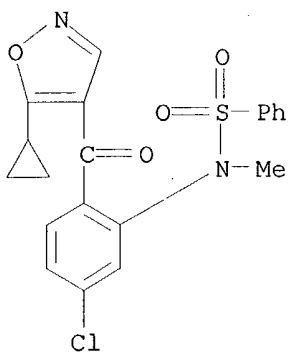
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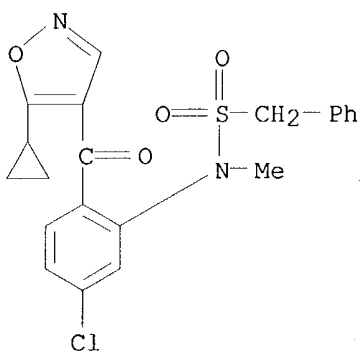
RN 158579-47-6 HCAPLUS  
 CN 1-Propanesulfonamide, N-[5-chloro-2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]phenyl]-N-methyl- (9CI) (CA INDEX NAME)



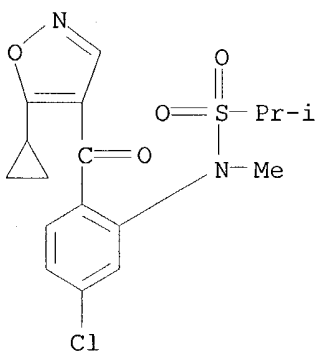
RN 158579-48-7 HCAPLUS  
 CN Benzenesulfonamide, N-[5-chloro-2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]phenyl]-N-methyl- (9CI) (CA INDEX NAME)



RN 158579-49-8 HCAPLUS  
 CN Benzenemethanesulfonamide, N-[5-chloro-2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]phenyl]-N-methyl- (9CI) (CA INDEX NAME)

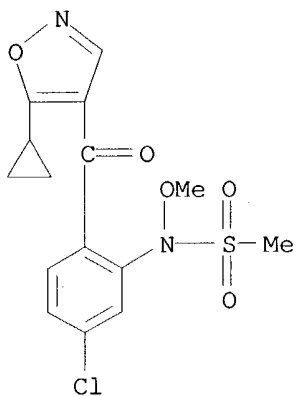


RN 158579-50-1 HCAPLUS  
 CN 2-Propanesulfonamide, N-[5-chloro-2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]phenyl]-N-methyl- (9CI) (CA INDEX NAME)

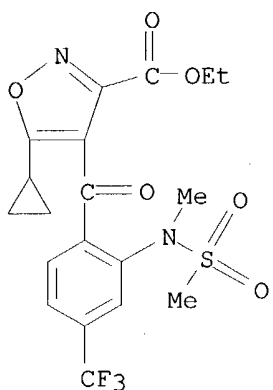


RN 158579-51-2 HCAPLUS  
 CN Methanesulfonamide, N-[5-chloro-2-[(5-cyclopropyl-4-isoxazolyl)carbonyl]phenyl]-N-methoxy- (9CI) (CA INDEX NAME)

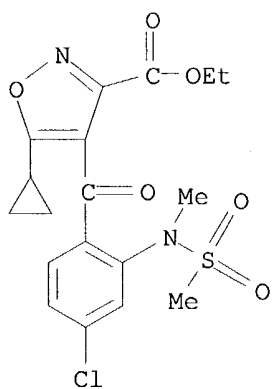




RN 158579-52-3 HCAPLUS  
 CN 3-Isoxazolecaboxylic acid, 5-cyclopropyl-4-[2-[methyl(methylsulfonyl)amino]-4-(trifluoromethyl)benzoyl]-, ethyl ester  
 (9CI) (CA INDEX NAME)



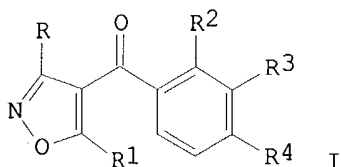
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 CN 3-Isoxazolecaboxylic acid, 4-[4-chloro-2-[methyl(methylsulfonyl)amino]benzoyl]-5-cyclopropyl-, ethyl ester (9CI) (CA INDEX NAME)



L16 ANSWER 9 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1994:217651 HCAPLUS

DOCUMENT NUMBER: 120:217651  
 TITLE: 4-(Benzoyl)isoxazole herbicides for weed control  
 INVENTOR(S): Cain, Paul Alfred; Cramp, Susan Mary  
 PATENT ASSIGNEE(S): Rhone-Poulenc Agriculture Ltd., UK  
 SOURCE: Eur. Pat. Appl., 30 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 8  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 560482	A1	19930915	EP 1993-300816	19930204
EP 560482	B1	19970806		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
ZA 9300769	A	19930908	ZA 1993-769	19930204
CA 2088840	AA	19930913	CA 1993-2088840	19930204
CA 2088840	C	20031230		
BR 9300324	A	19930914	BR 1993-324	19930204
CN 1076194	A	19930915	CN 1993-101488	19930204
CN 1057524	B	20001018		
AU 9332819	A1	19930916	AU 1993-32819	19930204
AU 664229	B2	19951109		
HU 63543	A2	19930928	HU 1993-293	19930204
HU 217562	B	20000228		
JP 07258231	A2	19951009	JP 1993-17611	19930204
JP 3310039	B2	20020729		
IL 104614	A1	19970415	IL 1993-104614	19930204
RO 112029	B1	19970430	RO 1993-120	19930204
CZ 282051	B6	19970514	CZ 1993-132	19930204
PL 172002	B1	19970731	PL 1993-297644	19930204
AT 156483	E	19970815	AT 1993-300816	19930204
ES 2105098	T3	19971016	ES 1993-300816	19930204
RU 2105761	C1	19980227	RU 1993-4513	19930204
SK 280521	B6	20000313	SK 1993-64	19930204
US 5650533	A	19970722	US 1995-458817	19950602
US 5656573	A	19970812	US 1995-460093	19950602
US 5747424	A	19980505	US 1997-848909	19970501
US 5859283	A	19990112	US 1998-22051	19980211
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			US 1992-850424	B2 19920312
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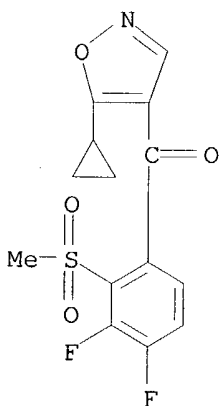


AB The title compds. I [R = H, CO<sub>2</sub>R<sub>5</sub>; R<sub>5</sub> = (un)branched (un)substituted C<sub>≤</sub>6 alkyl; R<sub>1</sub> = Me, iso-Pr, cyclopropyl, 1-methylcyclopropyl; R<sub>2</sub> = S(O)<sub>n</sub>R<sub>51</sub>; R<sub>51</sub> = (un)branched C<sub>≤</sub>4 alkyl; R<sub>3</sub> = Cl, Br, F, (un)branched (un)substituted C<sub>≤</sub>4 alkyl or alkoxy, C<sub>≤</sub>6 alkenyl, etc.; R<sub>4</sub> = Cl, Br, F, (un)branched (un)substituted C<sub>≤</sub>4 alkyl, C<sub>≤</sub>4 alkoxy substituted by ≥1 halogen atom(s), CN, etc.; n = 0-2], useful as herbicides for weed control (no data), are prepared and I-containing **agrochem.** formulations presented. Thus, 3-cyclopropyl-1-[3,4-difluoro-2-(methylsulfonyl)phenyl]-2-ethoxymethylenepropane-1,3-dione was cyclized with hydroxylamine hydrochloride, producing 5-cyclopropyl-4-[3,4-difluoro-2-(methylsulfonyl)benzoyl]isoxazole, m.p. 115-118°.

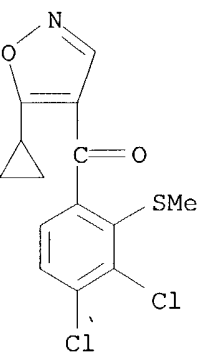
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RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
 (herbicidal activity of)

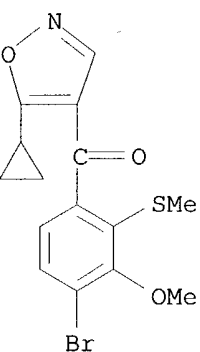
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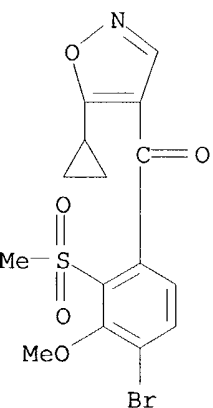
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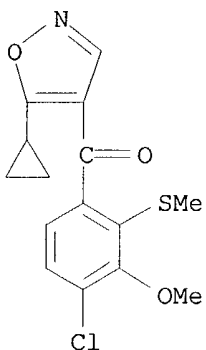
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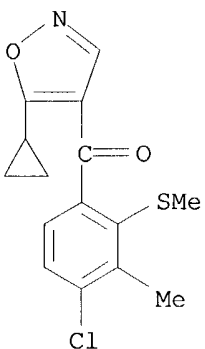
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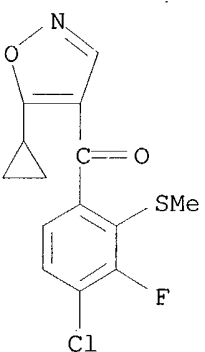
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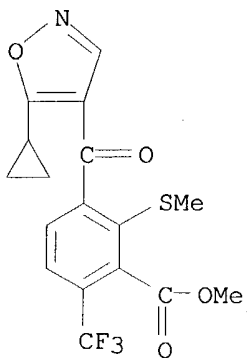
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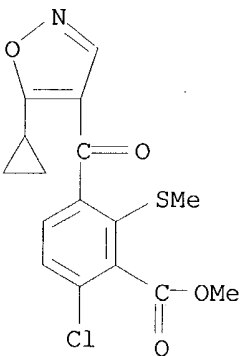


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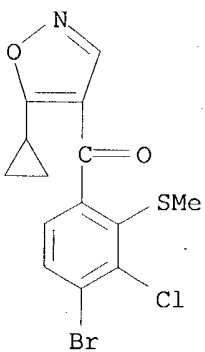
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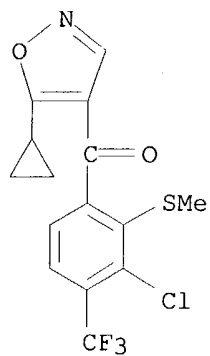
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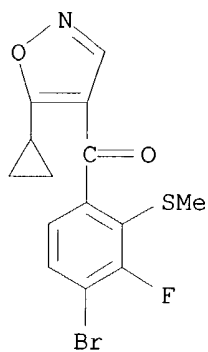
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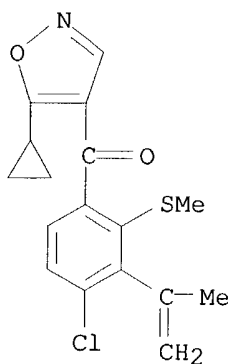
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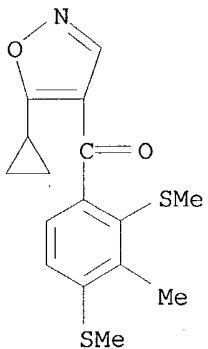
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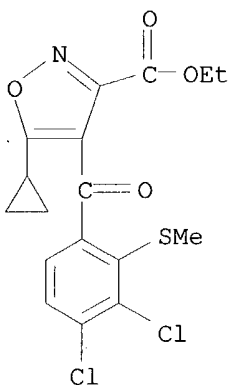
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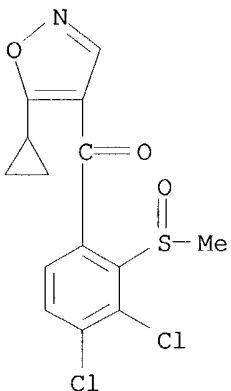
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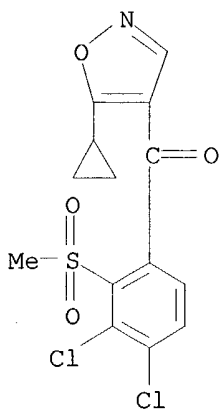
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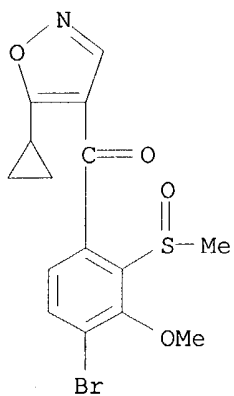
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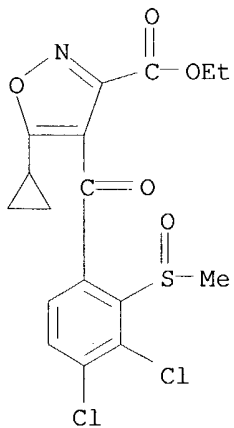
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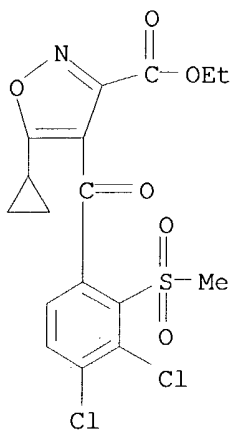
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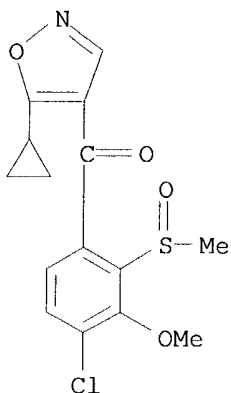
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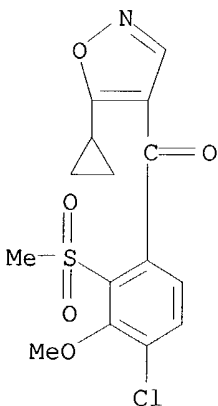
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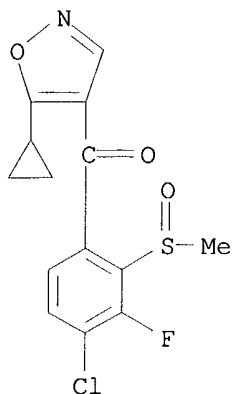
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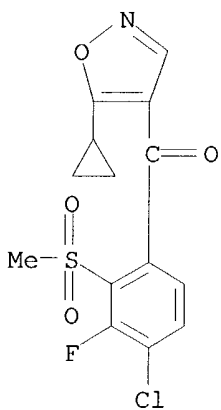
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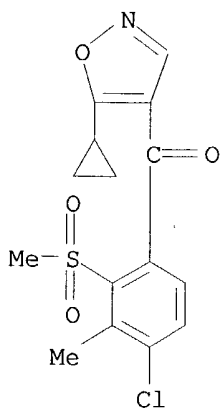
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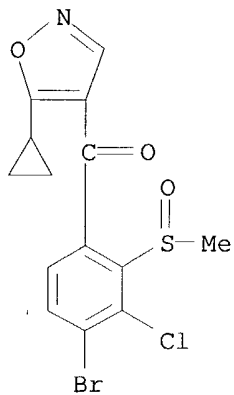
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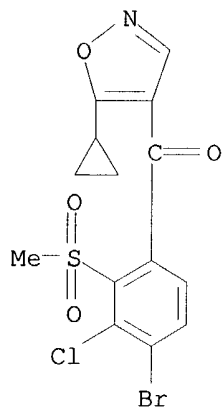
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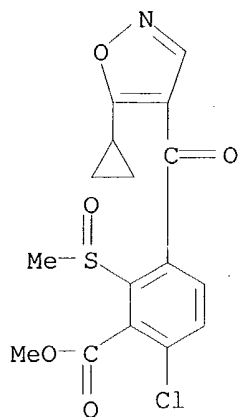
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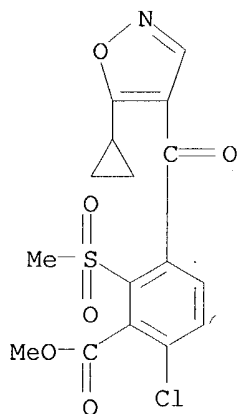
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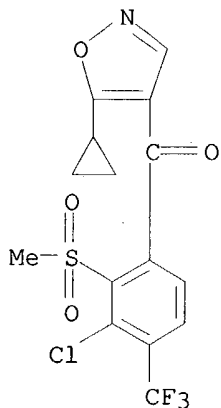
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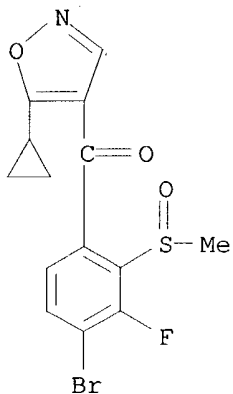
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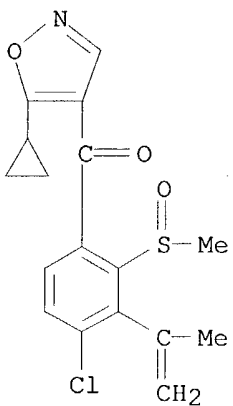
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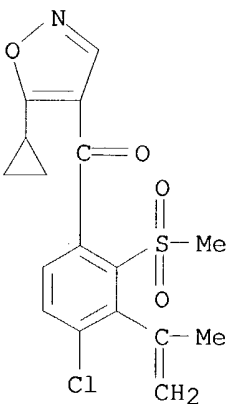
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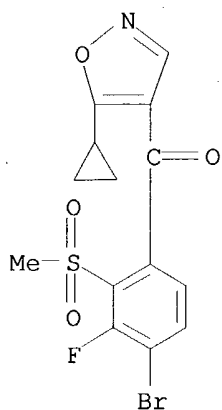


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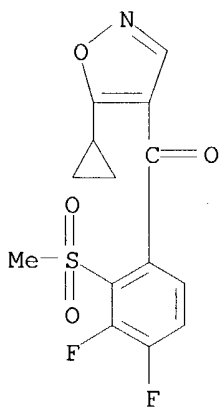
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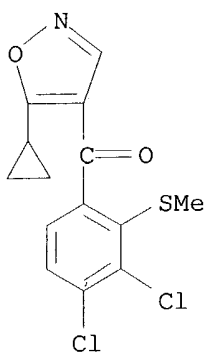
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (preparation and herbicidal activity of)

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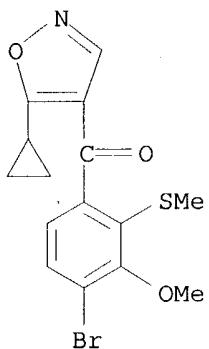
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(9CI) (CA INDEX NAME)



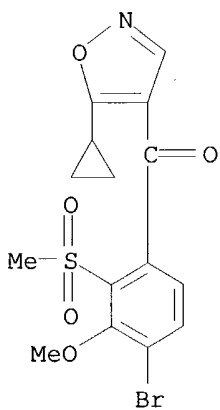
RN 153555-87-4 HCAPLUS

CN Methanone, [4-bromo-3-methoxy-2-(methylthio)phenyl] (5-cyclopropyl-4-isoxazolyl)- (9CI) (CA INDEX NAME)



RN 153555-88-5 HCAPLUS

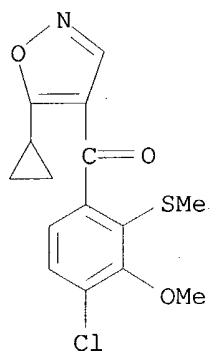
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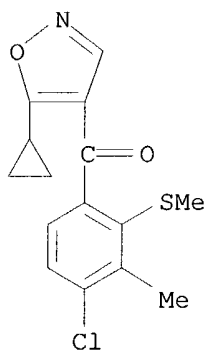
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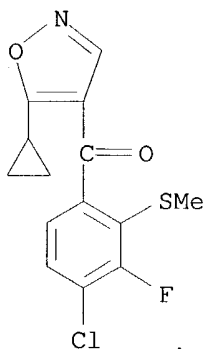
RN 153555-90-9 HCAPLUS

CN Methanone, [4-chloro-3-methyl-2-(methylthio)phenyl] (5-cyclopropyl-4-isoxazolyl)- (9CI) (CA INDEX NAME)



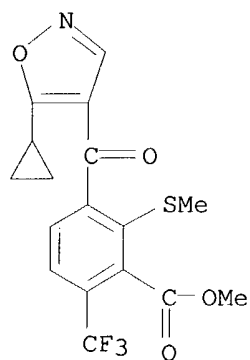
RN 153555-91-0 HCAPLUS

CN Methanone, [4-chloro-3-fluoro-2-(methylthio)phenyl] (5-cyclopropyl-4-isoxazolyl)- (9CI) (CA INDEX NAME)



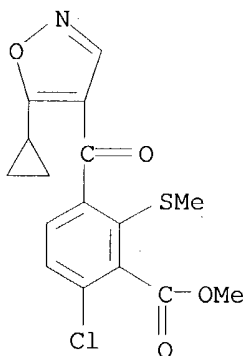
RN 153555-92-1 HCAPLUS

CN Benzoic acid, 3-[(5-cyclopropyl-4-isoxazolyl)carbonyl]-2-(methylthio)-6-(trifluoromethyl)-, methyl ester (9CI) (CA INDEX NAME)



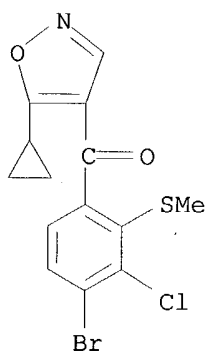
RN 153555-93-2 HCAPLUS

CN Benzoic acid, 6-chloro-3-[(5-cyclopropyl-4-isoxazolyl)carbonyl]-2-(methylthio)-, methyl ester (9CI) (CA INDEX NAME)



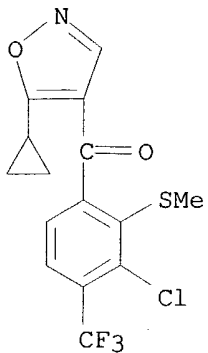
RN 153555-94-3 HCAPLUS

CN Methanone, [4-bromo-3-chloro-2-(methylthio)phenyl] (5-cyclopropyl-4-isoxazolyl)- (9CI) (CA INDEX NAME)



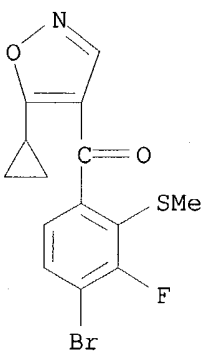
RN 153555-95-4 HCAPLUS

CN Methanone, [3-chloro-2-(methylthio)-4-(trifluoromethyl)phenyl] (5-cyclopropyl-4-isoxazolyl)- (9CI) (CA INDEX NAME)



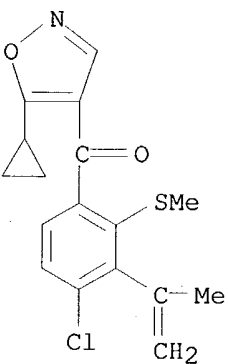
RN 153555-96-5 HCAPLUS

CN Methanone, [4-bromo-3-fluoro-2-(methylthio)phenyl] (5-cyclopropyl-4-isoxazolyl)- (9CI) (CA INDEX NAME)



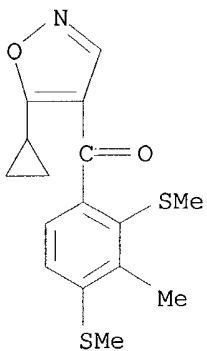
RN 153555-97-6 HCAPLUS

CN Methanone, [4-chloro-3-(1-methylethenyl)-2-(methylthio)phenyl] (5-cyclopropyl-4-isoxazolyl)- (9CI) (CA INDEX NAME)



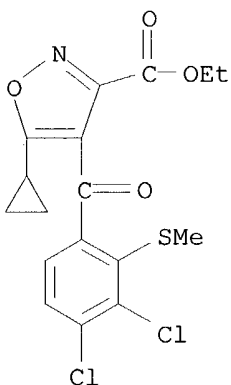
RN 153555-98-7 HCAPLUS

CN Methanone, (5-cyclopropyl-4-isoxazolyl)[3-methyl-2,4-bis(methylthio)phenyl]- (9CI) (CA INDEX NAME)



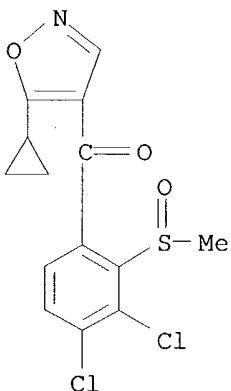
RN 153556-00-4 HCAPLUS

CN 3-Isoxazolecarboxylic acid, 5-cyclopropyl-4-[3,4-dichloro-2-(methylthio)benzoyl]-, ethyl ester (9CI) (CA INDEX NAME)



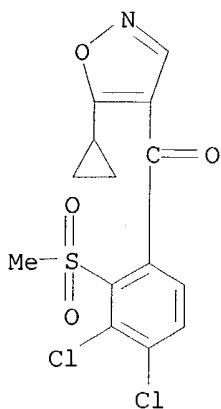
RN 153556-01-5 HCAPLUS

CN Methanone, (5-cyclopropyl-4-isoxazolyl)[3,4-dichloro-2-(methylsulfinyl)phenyl]- (9CI) (CA INDEX NAME)



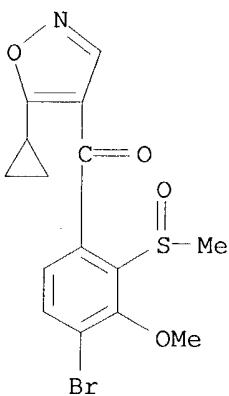
RN 153556-02-6 HCAPLUS

CN Methanone, (5-cyclopropyl-4-isoxazolyl)[3,4-dichloro-2-(methylsulfonyl)phenyl]- (9CI) (CA INDEX NAME)



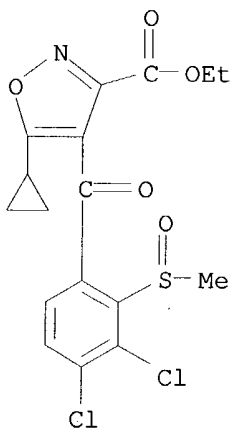
RN 153556-03-7 HCAPLUS

CN Methanone, [4-bromo-3-methoxy-2-(methylsulfinyl)phenyl] (5-cyclopropyl-4-isoxazolyl)- (9CI) (CA INDEX NAME)



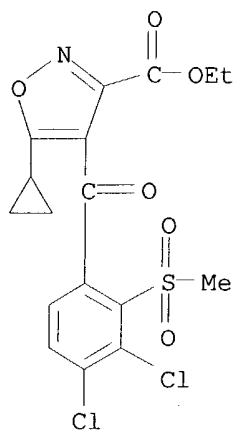
RN 153556-04-8 HCAPLUS

CN 3-Isioxazolecarboxylic acid, 5-cyclopropyl-4-[3,4-dichloro-2-(methylsulfinyl)benzoyl]-, ethyl ester (9CI) (CA INDEX NAME)



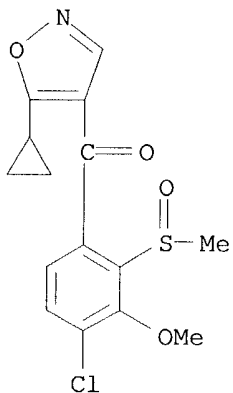
RN 153556-05-9 HCAPLUS

CN 3-Isioxazolecarboxylic acid, 5-cyclopropyl-4-[3,4-dichloro-2-(methylsulfonyl)benzoyl]-, ethyl ester (9CI) (CA INDEX NAME)



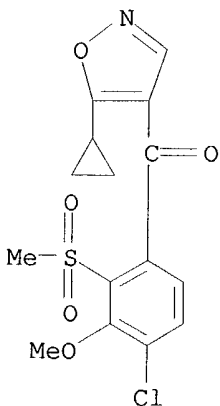
RN 153556-06-0 HCAPLUS

CN Methanone, [4-chloro-3-methoxy-2-(methylsulfinyl)phenyl] (5-cyclopropyl-4-isoxazolyl)- (9CI) (CA INDEX NAME)



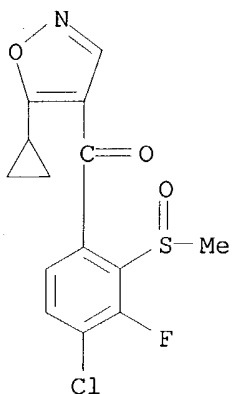
RN 153556-07-1 HCAPLUS

CN Methanone, [4-chloro-3-methoxy-2-(methylsulfonyl)phenyl] (5-cyclopropyl-4-isoxazolyl)- (9CI) (CA INDEX NAME)



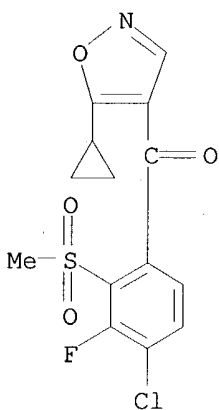
RN 153556-08-2 HCAPLUS

CN Methanone, [4-chloro-3-fluoro-2-(methylsulfinyl)phenyl] (5-cyclopropyl-4-isoxazolyl)- (9CI) (CA INDEX NAME)



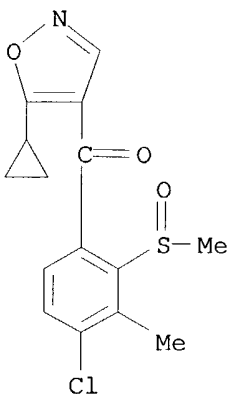
RN 153556-09-3 HCAPLUS

CN Methanone, [4-chloro-3-fluoro-2-(methylsulfonyl)phenyl] (5-cyclopropyl-4-isoxazolyl)- (9CI) (CA INDEX NAME)



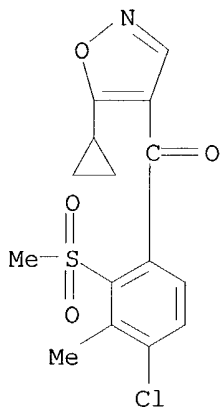
RN 153556-10-6 HCAPLUS

CN Methanone, [4-chloro-3-methyl-2-(methylsulfinyl)phenyl] (5-cyclopropyl-4-isoxazolyl)- (9CI) (CA INDEX NAME)



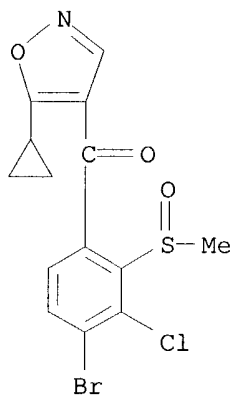
RN 153556-11-7 HCAPLUS

CN Methanone, [4-chloro-3-methyl-2-(methylsulfonyl)phenyl] (5-cyclopropyl-4-isoxazolyl)- (9CI) (CA INDEX NAME)



RN 153556-12-8 HCAPLUS

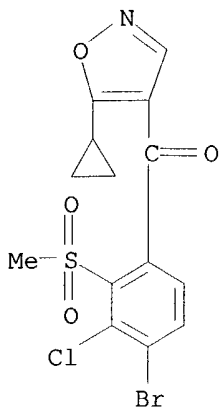
CN Methanone, [4-bromo-3-chloro-2-(methylsulfonyl)phenyl] (5-cyclopropyl-4-isoxazolyl)- (9CI) (CA INDEX NAME)



RN 153556-13-9 HCAPLUS

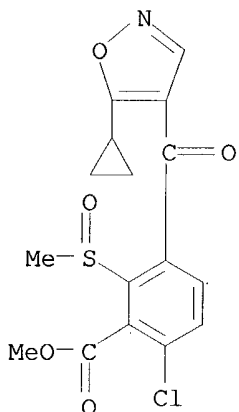
CN Methanone, [4-bromo-3-chloro-2-(methylsulfonyl)phenyl] (5-cyclopropyl-4-isoxazolyl)- (9CI) (CA INDEX NAME)





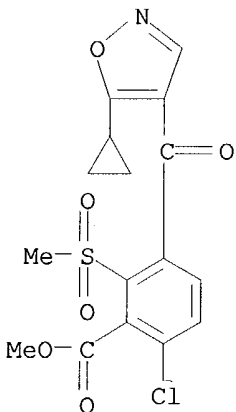
RN 153556-14-0 HCAPLUS

CN Benzoic acid, 6-chloro-3-[(5-cyclopropyl-4-isoxazolyl)carbonyl]-2-(methylsulfinyl)-, methyl ester (9CI) (CA INDEX NAME)



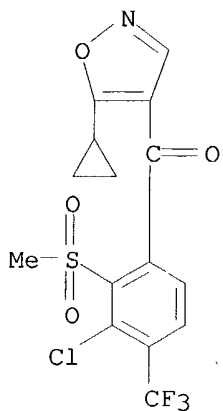
RN 153556-15-1 HCAPLUS

CN Benzoic acid, 6-chloro-3-[(5-cyclopropyl-4-isoxazolyl)carbonyl]-2-(methylsulfonyl)-, methyl ester (9CI) (CA INDEX NAME)



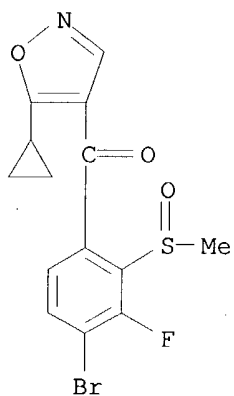
RN 153556-16-2 HCAPLUS

CN Methanone, [3-chloro-2-(methylsulfonyl)-4-(trifluoromethyl)phenyl] (5-cyclopropyl-4-isoxazolyl)- (9CI) (CA INDEX NAME)



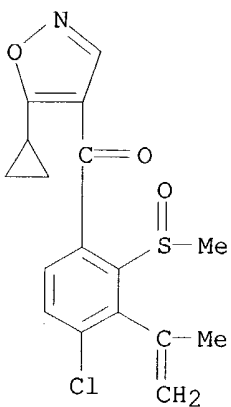
RN 153556-17-3 HCAPLUS

CN Methanone, [4-bromo-3-fluoro-2-(methylsulfinyl)phenyl] (5-cyclopropyl-4-isoxazolyl)- (9CI) (CA INDEX NAME)



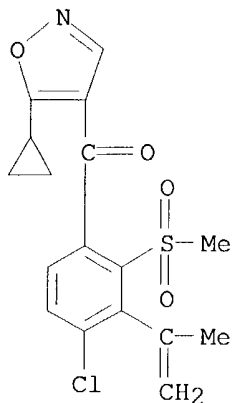
RN 153556-18-4 HCAPLUS

CN Methanone, [4-chloro-3-(1-methylethenyl)-2-(methylsulfinyl)phenyl] (5-cyclopropyl-4-isoxazolyl)- (9CI) (CA INDEX NAME)



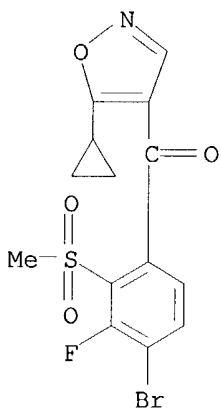
RN 153556-19-5 HCAPLUS

CN Methanone, [4-chloro-3-(1-methylethenyl)-2-(methylsulfonyl)phenyl] (5-cyclopropyl-4-isoxazolyl)- (9CI) (CA INDEX NAME)



RN 153556-20-8 HCAPLUS

CN Methanone, [4-bromo-3-fluoro-2-(methylsulfonyl)phenyl] (5-cyclopropyl-4-isoxazolyl)- (9CI) (CA INDEX NAME)



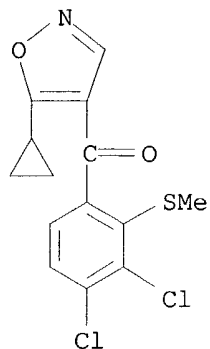
IT 153555-86-3 153555-96-5

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, in preparation of (benzoyl)isoxazole herbicides)

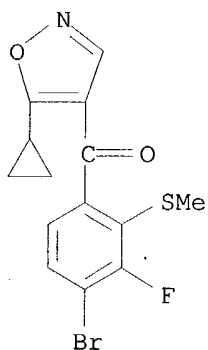
RN 153555-86-3 HCAPLUS

CN Methanone, (5-cyclopropyl-4-isoxazolyl) [3,4-dichloro-2-(methylthio)phenyl]- (9CI) (CA INDEX NAME)



RN 153555-96-5 HCAPLUS

CN Methanone, [4-bromo-3-fluoro-2-(methylthio)phenyl] (5-cyclopropyl-4-isoxazolyl)- (9CI) (CA INDEX NAME)



L16 ANSWER 10 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1994:134453 HCAPLUS

DOCUMENT NUMBER: 120:134453

TITLE: 4-(Benzoyl)isoxazole herbicides

INVENTOR(S): Cain, Paul Alfred; Cramp, Susan Mary

PATENT ASSIGNEE(S): Rhone-Poulenc Agriculture Ltd., UK

SOURCE: Eur. Pat. Appl., 21 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

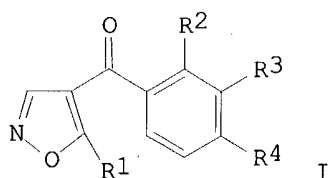
FAMILY ACC. NUM. COUNT: 8

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 560483	A1	19930915	EP 1993-300817	19930204
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
ZA 9300770	A	19930908	ZA 1993-770	19930204
CA 2088839	AA	19930913	CA 1993-2088839	19930204
BR 9300323	A	19930914	BR 1993-323	19930204
AU 9332818	A1	19930916	AU 1993-32818	19930204
AU 658044	B2	19950330		
HU 63544	A2	19930928	HU 1993-294	19930204
CN 1076694	A	19930929	CN 1993-101487	19930204
JP 05255284	A2	19931005	JP 1993-17612	19930204
RO 112028	B1	19970430	RO 1993-121	19930204

IL 104613	A1	19970610	IL 1993-104613	19930204
PL 171954	B1	19970731	PL 1993-297645	19930204
RU 2104273	C1	19980210	RU 1993-4493	19930204
US 5656573	A	19970812	US 1995-460093	19950602
US 5747424	A	19980505	US 1997-848909	19970501
US 5859283	A	19990112	US 1998-22051	19980211
PRIORITY APPLN. INFO.:			US 1992-850035	A 19920312
			GB 1989-20519	A 19890911
			GB 1990-17539	A 19900810
			US 1990-580795	B2 19900911
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			GB 1991-16833	A 19910805
			GB 1991-16835	A 19910805
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			US 1992-850128	B2 19920312
			US 1992-850424	B2 19920312
			US 1993-108792	B1 19930819
			US 1995-460093	A3 19950602
			US 1997-848909	A3 19970501

OTHER SOURCE(S): MARPAT 120:134453  
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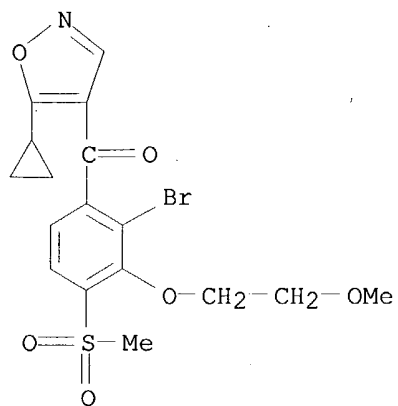
AB The title compds. I [R1 = (un)branched C1-4 alkyl, (un)substituted C3-4 cycloalkyl; R2 = halogen, R5, OR5, S(O)mR5, O(CH2)qOR5, CO2R5, NO2; R3 = halogen, R5, OR5, S(O)mR5, O(CH2)qOR5; R5 = (un)branched (un)substituted C1-4 alkyl; m = 0-2; q = 1-3; R4 = H, halogen, R5, OR5, S(O)mR5, O(CH2)qOR5, NO2], useful as herbicides for controlling the growth of weeds, are prepared and I-containing **agrochem.** formulations presented. Thus, 3-cyclopropyl-2-ethoxymethylene-1-[2-bromo-3-(2-methoxyethoxy)-4-(methylsulfonyl)phenyl]propan-1,3-dione was cyclized with hydroxylamine hydrochloride, producing I (R1 = cyclopropyl, R2 = Br, R3 = OCH2CH2OMe, R4 = MeSO2).

IT 152808-28-1P 152808-29-2P 152808-30-5P  
152808-31-6P 152808-32-7P 152808-33-8P  
152808-34-9P 152808-36-1P 152808-37-2P  
152808-38-3P 152808-39-4P 152808-40-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(preparation and herbicidal activity of)

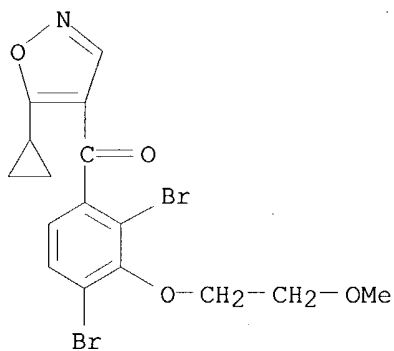
RN 152808-28-1 HCAPLUS

CN Methanone, [2-bromo-3-(2-methoxyethoxy)-4-(methylsulfonyl)phenyl] (5-cyclopropyl-4-isoxazolyl)- (9CI) (CA INDEX NAME)



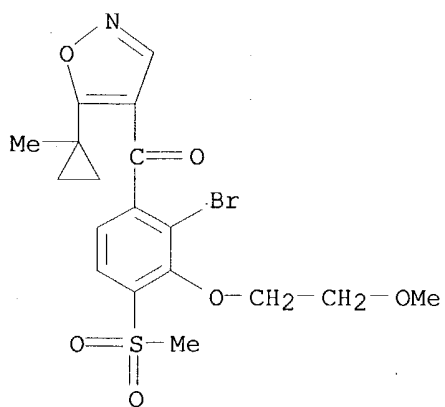
RN 152808-29-2 HCAPLUS

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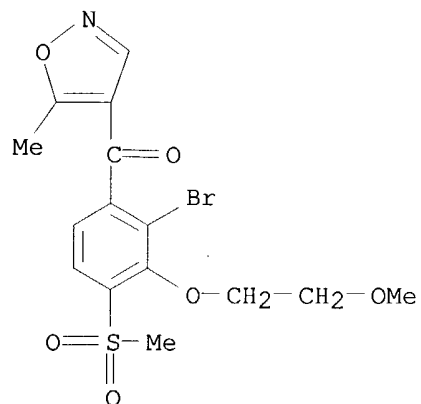
RN 152808-30-5 HCAPLUS

CN Methanone, [2-bromo-3-(2-methoxyethoxy)-4-(methylsulfonyl)phenyl][5-(1-methylcyclopropyl)-4-isoxazolyl]- (9CI) (CA INDEX NAME)



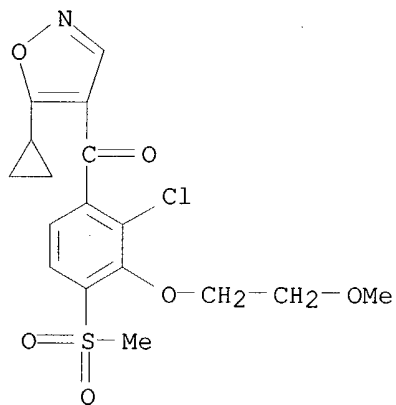
RN 152808-31-6 HCAPLUS

CN Methanone, [2-bromo-3-(2-methoxyethoxy)-4-(methylsulfonyl)phenyl][5-methyl-4-isoxazolyl]- (9CI) (CA INDEX NAME)



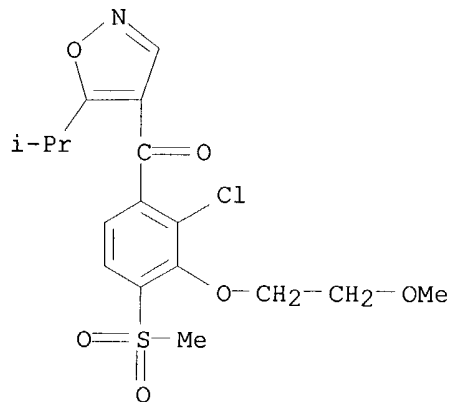
RN 152808-32-7 HCAPLUS

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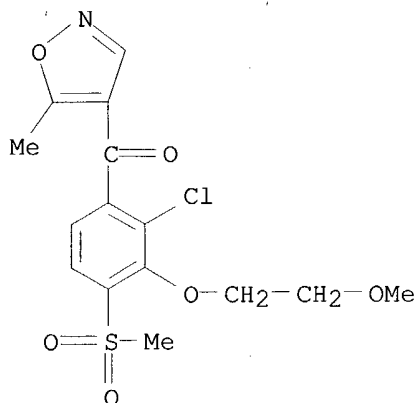


RN 152808-33-8 HCAPLUS

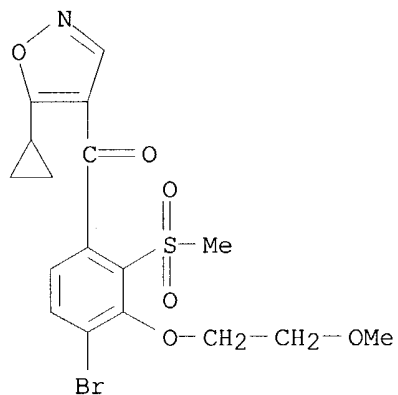
CN Methanone, [2-chloro-3-(2-methoxyethoxy)-4-(methylsulfonyl)phenyl] [5-(1-methylethyl)-4-isoxazolyl]- (9CI) (CA INDEX NAME)



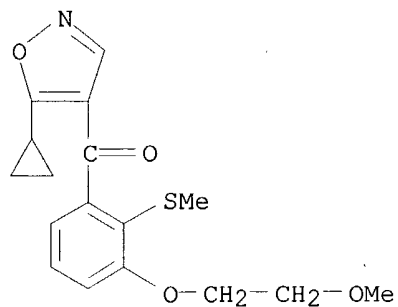
RN 152808-34-9 HCAPLUS  
 CN Methanone, [2-chloro-3-(2-methoxyethoxy)-4-(methylsulfonyl)phenyl] (5-methyl-4-isoxazolyl)- (9CI) (CA INDEX NAME)



RN 152808-36-1 HCAPLUS  
 CN Methanone, [4-bromo-3-(2-methoxyethoxy)-2-(methylsulfonyl)phenyl] (5-cyclopropyl-4-isoxazolyl)- (9CI) (CA INDEX NAME)



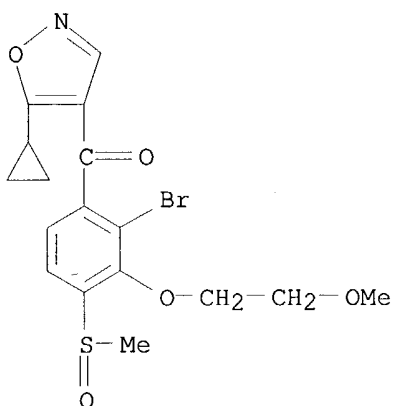
RN 152808-37-2 HCAPLUS  
 CN Methanone, (5-cyclopropyl-4-isoxazolyl) [3-(2-methoxyethoxy)-2-(methylthio)phenyl]- (9CI) (CA INDEX NAME)



RN 152808-38-3 HCAPLUS  
 CN Methanone, [2-bromo-3-(2-methoxyethoxy)-4-(methylsulfinyl)phenyl] (5-

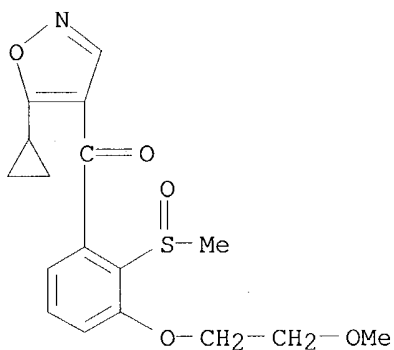


cyclopropyl-4-isoxazolyl)- (9CI) (CA INDEX NAME)



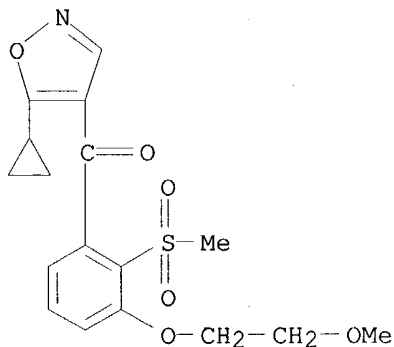
RN 152808-39-4 HCAPLUS

CN Methanone, (5-cyclopropyl-4-isoxazolyl)[3-(2-methoxyethoxy)-2-(methylsulfinyl)phenyl]- (9CI) (CA INDEX NAME)



RN 152808-40-7 HCAPLUS

CN Methanone, (5-cyclopropyl-4-isoxazolyl)[3-(2-methoxyethoxy)-2-(methylsulfonyl)phenyl]- (9CI) (CA INDEX NAME)



IT 152808-35-0P

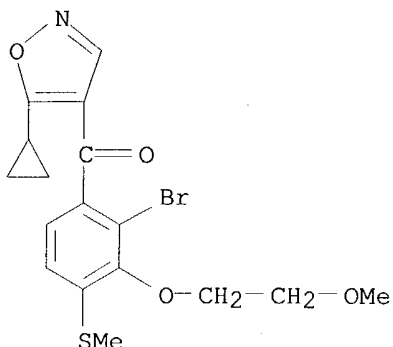
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological

study); PREP (Preparation)

(preparation and herbicidal activity of, reaction of)

RN 152808-35-0 HCAPLUS

CN Methanone, [2-bromo-3-(2-methoxyethoxy)-4-(methylthio)phenyl] (5-cyclopropyl-4-isoxazolyl)- (9CI) (CA INDEX NAME)



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L1 STR  
 L3 2644 SEA FILE=REGISTRY SSS FUL L1  
 L4 554 SEA FILE=HCAPLUS ABB=ON PLU=ON L3  
 L5 66069 SEA FILE=HCAPLUS ABB=ON PLU=ON ("WEED CONTROL"/CV OR "WEED CONTROL (HERBICIDAL)"/CV OR WEEDICIDES/CV OR "GROWTH INHIBITORS , PLANT"/CV OR HERBICIDES/CV OR "HORMONES, PLANT"/CV OR MULCHES/CV OR WEED/CV)  
 L6 19756 SEA FILE=HCAPLUS ABB=ON PLU=ON "WEED CONTROL (HERBICIDAL)"+AL L/CV  
 L7 58647 SEA FILE=HCAPLUS ABB=ON PLU=ON (HERBICIDES/CV OR "WEED CONTROL"/CV)  
 L8 215 SEA FILE=HCAPLUS ABB=ON PLU=ON L4 AND (L5 OR L6 OR L7)  
 L9 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L8 AND ?CAPSUL?  
 L15 12 SEA FILE=HCAPLUS ABB=ON PLU=ON L4 AND AGROCHEM?  
 L16 10 SEA FILE=HCAPLUS ABB=ON PLU=ON L15 NOT L9  
 L17 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L4 AND (CONTROL? OR SEQUEN?)(L ) (RELEASE OR DELIVER?)  
 L18 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L17 NOT (L9 OR L16)

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L18 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1998:787158 HCAPLUS

DOCUMENT NUMBER: 130:106455

TITLE: The mode of action of isoxaflutole II.

Characterization of the inhibition of carrot  
 4-hydroxyphenylpyruvate dioxygenase by the  
 diketone nitrile derivative of isoxaflutole

AUTHOR(S): Viviani, F.; Little, J. P.; Pallett, K. E.

CORPORATE SOURCE: Plant Science Research Department, Rhone-Poulenc Agriculture Ltd., Ongar/Essex, CM5 0HW, UK

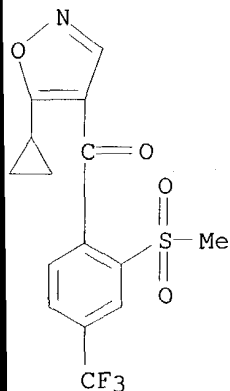
SOURCE: Pesticide Biochemistry and Physiology (1998), 62(2), 125-134

CODEN: PCBPBS; ISSN: 0048-3575

PUBLISHER: Academic Press  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB Isoxaflutole is a novel herbicide for broadleaf and grass weed **control** in corn and sugarcane which acts by inhibiting 4-hydroxyphenylpyruvate dioxygenase (HPPD). In plants and soil, isoxaflutole is rapidly converted to a diketonitrile derivative (DKN) which is the active herbicide principle. The kinetics of inhibition of carrot HPPD in vitro by the DKN showed that it is a potent tight-binding inhibitor ( $IC_{50} 4.9 \pm 0.2$  nM), exhibiting a time-dependent interactions with the enzyme in its ferrous state. DKN is a competitive inhibitor that rapidly inactivates the enzyme (with a constant rate of association of  $0.2 \pm 0.004$   $\mu M^{-1}s^{-1}$ ) by forming a reversible complex that **releases** slowly the inhibitor in an unmodified form. The decarboxylation coupled with reduction of mol. oxygen is accepted as the first enzymic event of the HPPD-catalyzed reaction which occurs as 4-hydroxyphenylpyruvate binds to the internal iron of protein via its keto acid function. The DKN of isoxaflutole presents a  $\beta$ -(1.3)-diketone moiety, a delocalized  $\pi$  system which can mimic the keto acid functionality of the substrate and which is also well known for its iron-chelating properties. Since this inhibitor competes with the substrate for binding, it is highly probable that it chelates the ferrous iron in the active site strongly by forming a stable ion-dipole charge transfer complex that resembles the initial substrate-iron complex or an early reaction intermediate. The slow **release** of the inhibitor in an unmodified form also suggests that the mol. oxygen activation due to ferrous iron generating a powerful oxidant as the inhibitor-enzyme complex form is probably not occurring.  
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IT **141112-29-0, Isoxaflutole**  
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)  
 (characterization of the inhibition of carrot 4-hydroxyphenylpyruvate dioxygenase by the diketonitrile derivative of isoxaflutole)  
 RN 141112-29-0 HCAPLUS  
 CN Methanone, (5-cyclopropyl-4-isoxazolyl)[2-(methylsulfonyl)-4-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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